

THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA

EXPORT OF LIVE SHEEP FROM AUSTRALIA

Report by the
Senate Select Committee on Animal Welfare

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Report approved by the Committee on 20 June 1985

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ABBREVIATIONS AND ACRONYMS

AAHQS	-	Australian Agricultural Health and Quarantine Service, (formerly ABAH)
ABAH	-	Australian Bureau of Animal Health (now AAHQS)
ABS	-	Australian Bureau of Statistics
ACTU	-	Australian Council of Trade Unions
AFAS	-	Australian Federation of Animal Societies
AFIC	-	Australian Federation of Islamic Councils
ALEA	-	Australian Livestock Exporters Association
ALEIAC	-	Australian Livestock Export Industry Advisory Committee
ALTV	-	Association of Livestock Transport Veterinarians
AMIEU	-	Australasian Meat Industry Employees Union
AMLC	-	Australian Meat and Livestock Corporation
AMLRDC	-	Australian Meat and Livestock Research and Development Corporation
AMRC	-	Australian Meat Research Committee
ANU	-	Australian National University
APHQS	-	Australian Plant Health and Quarantine Service (Now AAHQS)
AVA	-	Australian Veterinary Association
BAE	-	Bureau of Agricultural Economics
CF	-	Cost and Freight
CIF	-	Cost, Insurance, Freight

CSIRO	-	Commonwealth Scientific and Industrial Research Organization
DOT	-	Department of Transport
DPI	-	Department of Primary Industry
DST	-	Department of Shipping and Transport (Now DOT)
EIS	-	Export Inspection Service
FAO	-	Food and Agricultural Organization (United Nations)
FAS	-	<i>alongside</i> Free at Ship
FIRB	-	Foreign Investment Review Board
FOB	-	Free on Board
IAC	-	Industries Assistance Commission
KLTT	-	Kuwait Livestock Transport and Trading Company
LAC	-	Livestock Advisory Committee
LGPA	-	Livestock and Grain Producers Association of New South Wales
NFF	-	National Farmers Federation
RETWA	-	Rural Export and Trading (Western Australia)
RSPCA	-	Royal Society for the Prevention of Cruelty to Animals
SLTT	-	Saudi Livestock Transport and Trading Company
UAE	-	United Arab Emirates
UNE	-	University of New England
UNSW	-	University of New South Wales

GENERAL CONCLUSIONS AND RECOMMENDATIONS

General Conclusions

The live sheep trade transfers the place of slaughter of six or seven million sheep a year from Australia to the Middle East, which necessitates the transportation of those sheep at least 10 000 kilometres. The Australian Veterinary Association and the Royal Society for the Prevention of Cruelty to Animals argued, on animal welfare grounds, that livestock should be slaughtered as close as possible to the point of production. There is little doubt that sheep suffer during the journey from an Australian farm to an abattoir in the Middle East. Any form of transport puts stress on livestock. Even if sheep were to adapt to the confined conditions on sheep carriers, they would still undergo stress, or other forms of suffering, during the process of adaptation to those conditions, or under particular adverse conditions encountered on the journey. In addition, the conditions under which sheep are slaughtered in the Middle East do not match the conditions in Australian abattoirs, which have regulations to ensure a higher standard of animal welfare.

The Committee came to the conclusion that, if a decision were to be made on the future of the trade purely on animal welfare grounds, there is enough evidence to stop the trade. The trade is, in many respects, inimical to good animal welfare, and it is not in the interests of the animal to be transported to the Middle East for slaughter.

The Committee agreed that the animal welfare aspects of the trade cannot be divorced from economic and other considerations. Consequently, the Committee considered a range of economic and other factors, some of which were: returns to producers, investment in the trade, international trade considerations, changes in the structure of the Australian flock and the cost to the meat processing industry. After consideration of all factors, the Committee acknowledges the reality of the situation that any short-term cessation or disruption to the trade would cause considerable dislocation both in Australia and in the Middle East. Consequently, the Committee agrees that the trade will continue for some years and insists that significant improvements be made to animal welfare in many areas of the trade as recommended in this report.

The implementation of reforms will help to reduce but not eliminate stress, suffering and risk during transportation of sheep to the Middle East. Therefore a long-term solution must be sought. The substitution of the refrigerated sheepmeat trade for the live export trade offers such a solution. The Federal Government should promote and encourage the expansion of the

refrigerated sheepmeat trade to the Middle East and other countries, with the aim of eventually substituting it for the live sheep trade.

Recommendations

4.8 The Committee RECOMMENDS that the Australian Agricultural Health and Quarantine Service ensure that research agreed to by the Australian Livestock Export Industry Advisory Committee in February 1984, for which funding has been approved by Australian Meat Research Committee, on regional sources of sheep and subsequent adaptation to conditions on live sheep carriers, be commenced without delay.

4.15 The Committee RECOMMENDS that live sheep under two years of age not be exported until the Australian Agricultural Health and Quarantine Service has completed an investigation as to the minimum age that should apply to export sheep.

5.14 The Committee RECOMMENDS that details of sheep mortalities sustained during transportation from farm to feedlot be forwarded to the Australian Agricultural Health and Quarantine Service for collation and analysis.

6.12 The Committee RECOMMENDS that the Australian Agricultural Health and Quarantine Service revise the standards to provide for a period of feedlotting of sheep of not less than seven days prior to export and that it be made clear that this period excludes the days of arrival and departure.

6.15 The Committee RECOMMENDS that the Australian Agricultural Health and Quarantine Service issues instructions to quarantine veterinary officers to prevent sheep, which have not spent the specified time in a feedlot, from being loaded on to a sheep carrier.

6.22 The Committee RECOMMENDS that troughs in feedlots be raised to approximately the height of troughs onboard carriers.

6.29 The Committee RECOMMENDS that feed troughs be covered in export feedlots at Portland and in other places where there are problems or potential problems with weather conditions affecting the adaptation of sheep to a pellet diet.

6.34 The Committee RECOMMENDS that the State Departments of Agriculture assess the capacity of each feedlot and ensure that the capacity is not exceeded at any time.

6.44 The Committee RECOMMENDS that adequate shelter be provided to sheep in the feedlots.

6.51 The Committee RECOMMENDS that details of sheep mortalities sustained during the period of feedlotting prior to export be forwarded to the Australian Agricultural Health and Quarantine Service for collation and analysis.

6.56 The Committee RECOMMENDS that the Australian Agricultural Health and Quarantine Service, in consultation with the State Departments of Agriculture and the Australian Livestock Exporters Association, draw up national standards for export feedlots.

6.57 The Committee further RECOMMENDS that the State Governments license export feedlots based on the proposed national standards and, should a feedlot fail to observe these standards, the licence for that feedlot be revoked, suspended or not renewed, as appropriate.

7.9 The Committee RECOMMENDS that the Department of Transport, in consultation with the Australian Livestock Exporters Association and Australian Agricultural Health and Quarantine Service, commission research into the use of binders and other methods to reduce the incidence of pellet crumbling and dusty feed in feedlots and aboard ships and to establish a minimum standard of pellet cohesion to be incorporated in the Marine Orders and Code of Practice.

7.24 The Committee RECOMMENDS that Australian Agricultural Health and Quarantine Service arrange for research to be done to draw up minimum standards for pellets to maintain body weight and to ensure the nutritional welfare of the sheep in the feedlot and aboard the carrier.

7.25 The Committee also RECOMMENDS that a uniform pellet testing procedure be carried out either by a government authority or an independent body for each shipment of sheep and that the results of these tests be forwarded to the feedmill, the shipper, the relevant State Department of Agriculture and the Australian Agricultural Health and Quarantine Service.

8.13 The Committee RECOMMENDS that the Australian Agricultural Health and Quarantine Service draw the attention of quarantine veterinary officers to the need to halt loading under unsuitable weather conditions.

8.21 The Committee RECOMMENDS that the Australian Agricultural Health and Quarantine Service, in consultation with State Departments of Agriculture, arrange training programmes for waterside workers who load animals on to carriers.

8.33 The Committee RECOMMENDS that quarantine veterinary officers inspect carriers before departure to ensure that stocking densities are complied with.

8.37 The Committee RECOMMENDS that the Livestock Advisory Committee review stocking densities onboard live sheep carriers and, if necessary, the Department of Transport amend the Marine Orders, Part 43, accordingly.

9.21 The Committee strongly supports the recent development of government veterinary officers travelling on about 20 per cent of voyages of live sheep carriers to the Middle East. The Committee RECOMMENDS that the implementation of this scheme be given high priority by the Australian Agricultural Health and Quarantine Service.

9.22 The Committee RECOMMENDS that the Federal Government encourage live sheep export shipping companies to employ Australian stockmen on live sheep carriers.

9.34 The Committee RECOMMENDS that the Department of Transport, in consultation with the Australian Agricultural Health and Quarantine Service, investigate the problem of trough fouling aboard live sheep carriers and revise the Marine Orders accordingly.

9.40 The Committee RECOMMENDS that the Department of Transport, in Consultation with the Australian Agricultural Health and Quarantine Service, assess the welfare benefits of automatic feeding and watering equipment and, if necessary, amend the Marine Orders to require their installation in live sheep carriers.

9.44 The Committee RECOMMENDS that the Department of Transport, in consultation with the Livestock Advisory Commission and the Australian Agricultural Health and Quarantine Service, consider the question of optimum volume of reserve feed and water and, if necessary, revise the Marine Orders accordingly.

9.47 The Committee RECOMMENDS that the Department of Transport assess the merits of different feed handling systems in their ability to reduce crumbling of the pellet.

9.48 The Committee further RECOMMENDS that, on the basis of the Department of Transport assessment, satisfactory feed handling systems be required to be installed in all future carriers entering the trade, and that the Marine Orders Part 43 be revised accordingly.

9.66 The Committee RECOMMENDS that the Department of Transport, in consultation with the Australian Agricultural Health and Quarantine Service, undertake, as a matter of priority, an investigation of the effectiveness of ventilation standards required for sheep carriers, and revise Marine Orders Part 43 accordingly.

9.77 The Committee RECOMMENDS that all live sheep carriers be required to meet the revised standards recommended in this report or be withdrawn from the trade.

16.33 The Committee RECOMMENDS that federal legislation be enacted to give Australian Agricultural Health and Quarantine Service responsibility for the health and welfare of sheep from arrival at an export feedlot to loading onboard a carrier. Under this legislation and where necessary in consultation with the industry, Australian Agricultural Health and Quarantine Service be required to, apart from the continuation of its present functions:

- (i) receive, collate and analyse statistics and other information in relation to transport of sheep to the feedlot, sheep in the feedlot, transport of sheep to the carrier and transport of sheep to the Middle East;
- (ii) ensure the maintenance of proper standards of health and welfare of sheep, as set out in legislation, regulations or codes of practice, from arrival at an export feedlot to loading onboard a carrier; and
- (iii) to conduct research or arrange for research to be done into aspects of the live sheep export trade.

CHAPTER 1

INTRODUCTION

Appointment of Committee

1.1 The Senate appointed the Select Committee on Animal Welfare on 16 November 1983 to inquire into and report upon:

'the question of animal welfare in Australia, with particular reference to:

- (a) interstate and overseas commerce in animals;
- (b) wildlife protection and harvesting;
- (c) animal experimentation;
- (d) codes of practice of animal husbandry for all species; and
- (e) the use of animals in sport.'

1.2 After preliminary hearings in May and July 1984, the Committee decided to concentrate on two or three areas of animal welfare at a time and report its findings and recommendations to the Senate on the completion of its examination of each area. One of the first two areas to be examined was the live sheep export trade.

1.3 At the time, there was criticism of the trade from animal welfare organisations, including the RSPCA and the Australian Federation of Animal Societies (AFAS). There were also serious industrial problems, mainly between the industry and the Australasian Meat Industry Employees' Union (AMIEU), which maintained that the trade was the cause of the closure of

many abattoirs and, consequently, the retrenchment of many of its members. The Committee considered that, in the circumstances, this area of animal welfare should be accorded priority. Although the Committee initially examined the export of all livestock, it eventually decided to restrict its examination to live sheep exports.

Evidence Presented to the Committee

1.4 The Committee took evidence from a wide range of organisations and individuals on all facets of the trade. A list of those organisations and individuals is contained at Appendix 1. Inspections were made of two carriers, the 'Al Khaleej' and the 'Mawashi Al Gaseem', and of feedlots near Fremantle, Devonport and Adelaide.

1.5 Unlike many other areas of the Committee's inquiry, where animal welfare organisations have presented well-documented submissions to the Committee, the Committee soon found that little information about the trade was publicly available and that which was available was either not easily accessible, scattered among many sources, or out of date. As a result of the public hearings, in which the Committee questioned many witnesses about the trade, there is now a considerable amount of information on the trade publicly available from a single source.

1.6 Although the Committee concentrated on animal welfare issues in the inquiry, it decided it could not exclude economic and other factors, particularly as some animal welfare organisations called for the trade to be banned. The immediate banning or phasing out of the trade would have significant economic consequences which had to be considered.

CHAPTER 2

HISTORY OF THE EXPORT OF LIVE SHEEP FROM AUSTRALIA

The Early Carriage of Live Sheep by Ship

2.1 In the 1830s a domestic trade in live sheep between Tasmania and Victoria was established using a fleet of 15 to 20 small ships that carried loads of 300 to 1000 sheep. Average losses of about 15 per cent were incurred for the one-week voyage and 'for want of a proper supply of food and water, or from stormy weather whole shipments were sometimes almost entirely lost on the passage or shortly after landing'.¹ In addition it was common for wool break to occur with total loss of the clip. The export trade in primary products from the Australian colonies in the nineteenth century was dominated by wool, not sheep.

2.2 Live Sheep were first exported from Western Australia in 1845 and by 1895 one thousand sheep were being sold for slaughter in Singapore.²

2.3 In 1926 the Commonwealth introduced the Navigation (Deck Cargo and Livestock) Regulations to regulate the export of livestock. These Regulations dealt with such things as provision of feed and water for the livestock, protection from weather, drainage and the construction and cleaning of pens and stalls. They remained largely unchanged until the introduction of the Marine Orders Part 43 (Cargo and Cargo Handling - Livestock) on 1 July 1983.

The Origins of the Present Trade in Live Sheep

2.4 The modern live sheep export trade began in 1945-46 when more than 24 000 sheep were sent from Western Australia to Singapore.³ Sheep were also exported to Christmas Island and Mauritius. In these early days of the trade, sheep were transported over shorter distances than at present, in ships that were converted temporarily for the voyage.

2.5 In 1952, the then Department of Shipping and Transport (DST) formed a Livestock Advisory Committee (LAC) to advise on livestock carrier requirements. It consisted of representatives from the Department of Commerce, livestock shipping companies and ship-fitting companies, under the chairmanship of an officer of the DST. It drew up a series of specifications, including pen construction and ventilation standards.⁴ In the early 1960s, it determined stocking capacities and food and water allowances for sheep.⁵

2.6 The Middle East trade commenced in the early 1960s with the introduction of two small ships each having a capacity of about 6000 sheep. The sheep were loaded at Fremantle and Adelaide and unloaded mainly at ports in the Persian Gulf, principally in Kuwait.⁶

2.7 Prior to 1970 livestock were carried in small ships or as deck cargo. In 1970 the largest livestock carrier in operation was the 'Cormoran' with a capacity of 28 000 sheep. By the mid-1970s ships capable of carrying 50 000 sheep were coming into service.⁷ These were mainly converted small oil tankers that had been redeployed after the 1973 oil crisis and the advent of the super tankers. Subsequently larger ships were converted to carry up to 125 000 sheep. The introduction of these new livestock carriers necessitated a review of existing specifications and the membership of the LAC was widened to

include representatives from the Animal Quarantine Division of the Department of Health, the Department of Primary Industry (DPI), State Departments of Agriculture and pastoralists.

Opposition to the Trade

2.8 In the late 1970s, the trade was beset with industrial problems. The AMIEU, many members of which were being retrenched as a result of closures of abattoirs, blamed the expanding live sheep export trade for those closures. The Union maintained that the jobs of its members were being exported to the Middle East. Although the Union did not advocate the abolition of the trade, it wanted the Federal Government to institute a live-to-carcase ratio on exports. These industrial problems led to confrontations between producers and union pickets, who were preventing sheep from being loaded on to carriers.

2.9 At about the same time, the animal welfare movement also entered the debate, arguing that the trade should be abolished on animal welfare grounds. The 'Farid Fares' disaster gave impetus to the movement's campaign. This livestock carrier was on passage from Devonport to Bandar Khomeini with a cargo of 40 605 sheep. On 27 March 1980 it caught fire and sank south-west of Kangaroo Island in the Great Australian Bight with the loss of the entire cargo of sheep. The Federal Government responded to these criticisms by sending a veterinarian from the then Australian Bureau of Animal Health (ABAH) to the Middle East aboard a live sheep carrier to investigate the health, welfare and handling of the sheep at sea. After some delay, the veterinarian's report, entitled 'Sea Transport of Sheep', was released in March 1981.

2.10 Despite criticisms of the trade and the loss of the Iranian market of approximately two million sheep shortly after the beginning of the Iranian-Iraqi war, the trade expanded to the extent that in 1982-83, approximately seven million sheep were exported with a free on board (FOB) value of \$A190 million.

2.11 In December 1981, the Federal Minister for Primary Industry and the President of the ACTU reached agreement on the live sheep trade. First, it was agreed that a fund should be established to finance the promotion of carcass sheepmeat in the Middle East. This proposal was subject to considerable debate but never really attracted widespread industry support. Second, they agreed on a proposal for consideration of retraining and relocation schemes for meatworkers displaced by the trade. This eventually resulted in the 1982 Industries Assistance Commission (IAC) study, The Abattoir and Meat Processing Industry. Third, they agreed to send a special mission to the Middle East to study the live sheep trade.⁸

2.12 In March-April 1982, the Australian Sheep Meat Study Mission to the Middle East examined the demand for sheepmeat in the Middle East. The majority report concluded that there was no close substitute for freshly slaughtered or 'hot' meat among the indigenous Arab population. The dissenting report of the AMIEU members concluded that marketing initiatives by Australian exporters would expand the consumption of chilled and frozen mutton.

Recent Developments

2.13 In March 1983, a severe cold snap hit Victoria. Approximately 15 000 sheep died in the Portland feedlots as a result of cold, stress and exposure.⁹ This event focussed the attention of animal welfare organisations and government authorities on the trade.

2.14 In July 1983, the Minister for Primary Industry addressed the wider issues of inadequate pre-conditioning and poor selection of export sheep and expressed concern at the level of mortalities:

'...the trade of exporting live sheep for slaughter is open to criticism. The current levels of mortalities cannot be explained, understood nor justified. The industry seems intent on ignoring these dying sheep and the pleas of the concerned public.'¹⁰

On 10 August 1983 the Minister announced the formation of the Australian Livestock Export Industry Advisory Committee (ALEIAC). It consisted of representatives from the Australian Livestock Exporters Association (ALEA), the Australian Meat and Livestock Corporation (AMLC), the Sheepmeat Council of Australia, the Cattle Council, the then ABAH and two nominees of the Standing Committee on Agriculture. The ALEIAC called for research into the veterinary problems associated with the trade and arranged for Dr R. Brennan of the South Australian Department of Agriculture to do a study. He presented his report, 'Live Sheep Export Trade ; Current Knowledge and Deficiencies in Relation to Sheep Losses' in January 1984.

2.15 The ALEIAC considered the report, particularly the deficiencies in current knowledge of the trade. It recommended that priority be given to research in certain areas, such as the causes of mortality and weight loss, and made recommendations to the Australian Meat Research Committee (AMRC) for funding of research in Western Australia and Victoria.¹¹

CHAPTER 3

STRUCTURE OF THE LIVE SHEEP TRADE

Introduction

3.1 The Committee was informed that the export of live sheep from Australia to the Middle East is the largest, planned, mass movement of animals by sea in the history of the world.¹ As a result, no comparable research and management problems have been encountered elsewhere in the world.

Size of the Trade

3.2 In 1983, 7.3 million sheep with an FOB value of \$A208 million were exported from Australia.² Approximately 3.2 million were loaded in Western Australia, 2.1 million in South Australia, 1.5 million in Victoria and 0.2 million in Tasmania. The principal destinations for these sheep were Saudi Arabia (3.2 million), Kuwait (2.0 million), Libya (0.6 million), Qatar (0.4 million) and the United Arab Emirates (0.1 million).³ This contrasts with the year ended 30 June 1977 when 2.2 million sheep were exported from Western Australia, 1.0 million from South Australia, 0.3 million from Victoria, and 0.1 million from Tasmania to give a total of 3.5 million. The principal destinations were Iran (1.7 million), Kuwait (0.7 million), Saudi Arabia (0.5 million) and Singapore (0.1 million).⁴ In a period of six years the trade had doubled.

3.3 The voyage to the Persian Gulf usually takes about three weeks but that depends on the port of loading and the port of unloading. For example, a voyage from Portland takes three or

four days longer than one from from Fremantle and the passage through the Suez Canal to Libya can increase the voyage by several days. In addition, some ships unload sheep at more than one port in the Middle East. Bunkering and revictualling of ships, berthing delays, bad weather and political developments can also extend the duration of the voyage. The distance travelled ranges from 10 000 to 15 000 kilometres.

Industry Structure

3.4 The export sheep trade has experienced rapid growth in recent years, passing from the 'buccaneering' phase of the early 1970s to the present phase of a large investment base and increasingly complicated management. The industry can be divided into three sectors: (i) purchase and assembly; (ii) sea transport; and, (iii) Middle East.

Purchase and Assembly Sector

3.5 The first sector of the industry is the domestic or Australian sector which involves the selection, purchase, transport, assembly, feedlotting and loading of sheep.

3.6 The selection and purchasing of sheep are done by special purchasing teams employed by either the export companies or the pastoral houses. Private livestock agents are also involved in securing orders for 'boat sheep'.

3.7 At present 50 per cent of feedlots are owned by the four integrated export companies; that is, the Kuwait Livestock Transport and Trading Company (KLTT), the Saudi Livestock Transport and Trading Company (SLTT), Rachid Fares Enterprises and Siba International. Most of the others are Australian owned.

3.8 Eleven export feedlots in Western Australia have been approved and had their capacity assessed by the Western Australian Department of Agriculture as at February 1985. The ownership and capacity of each are shown in Table 3.1.

Table 3.1: Capacity of Western Australian Feedlots

<u>Owner</u>	<u>Sheep</u>
RETWA (KLTT)	125 000
Fares	110 000
Siba	70 000
Metro	20 000
Emanuells (x3)	26 000
Ormond Nominees	115 000
Others (x3)	<u>100 000</u>
TOTAL CAPACITY	566 000

Seven South Australian feedlots have had their capacities vetted by the South Australian Department of Agriculture as shown in Table 3.2.

Table 3.2: Capacity of South Australian Feedlots

<u>Owner</u>	<u>Sheep</u>
Metro (x3)	150 000
Elders (x2)	135 000
Dalgetys	30 000
Reg H. Pearce Trading Pty Ltd	<u>60 000</u>
TOTAL CAPACITY	375 000

(Note: Wallaroo (x2) and Port Lincoln are no longer used)

Two feedlots have been assessed by the Victorian Department of Agriculture. Their capacities are shown in Table 3.3.

Table 3.3: Capacity of Victorian Feedlots

<u>Owner</u>	<u>Sheep</u>
Pedigree (Portland)	150 000
Kobo (Portland)	<u>120 000</u>
TOTAL CAPACITY	270 000

There is one feedlot in Tasmania.

Table 3.4: Capacity of Tasmanian Feedlot

Quoiba (Devonport)	100 000
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3.9 The live sheep stock feed manufacturers are listed in Table 3.5.

Table 3.5: Feed Manufacturers

Western Australia

Fares Rural Company, Kojonup
Milne Feeds Pty Ltd, Perth
Swan Feeds Pty Ltd, Perth
Wesfeeds Pty Ltd, Perth
Maces Feeds, Williams

South Australia

Milling Industries, Adelaide
Johnson and Sons, Adelaide
Red Comb Co-op, Adelaide

Victoria

Barastoc (Elders), Kerang
R.M. Gillett, Geelong
Metro Deny Fodders, Heywood

Two of the four major exporting companies, Fares and KLTT, own their own feedmills.

Sea Transport Sector

3.10 The second sector involves the design, commissioning, deployment and operating of livestock carriers and the management of sheep aboard the carrier. Livestock exporters are licensed by the AMLC and in 1984 there were 16 licensed exporters which exported more than 1000 sheep. Currently, there are 24 ships, approved by the Federal Department of Transport, to export live sheep to the Middle East, ranging in capacity from 12 000 to 125 000 sheep. None of the livestock carriers is Australian owned although Wesfarmers has a small share in one ship. Twelve ships, with an annual capacity of approximately 4 240 000 sheep, are owned by companies in Kuwait and Saudi Arabia. Ten years ago most ships were under charter but now charter shipping is a very small proportion of the total.⁵

Middle East Sector

3.11 The third sector concerns the unloading, feedlotting, transport and slaughter of sheep in the Middle East. The integrated companies own 50 per cent of the holding capacity in the receiving/importing countries.

3.12 The distribution, wholesaling and retailing of the sheep are the responsibility of various government and commercial organisations. In Libya, LUHUM, the Libyan Livestock and Meat National Company, a state-owned corporation, has total

control over this operation. In Kuwait it is controlled by KLTT and another smaller operator. In Saudi Arabia it is carried out by SLTT, Mukairish, and KLTT, although the tenure of KLTT in this market is uncertain. In the United Arab Emirates, the Dubai company receives trans-shipments from Kuwait and also re-exports to Muscat. It appears to be largely privately owned with some government participation. In Bahrain the Ministry of Commerce and Agriculture is solely responsible for the purchase of sheep.

Investment Base of the Industry

3.13 The main explanation for the rapid growth in the trade was the significant increase in Middle Eastern oil revenues, which provided ample funds for investment. There is a large investment base to the trade. For example, the conversion of an oil tanker to the livestock trade could cost \$A32 million or more above the original purchase price.⁶ KLTT has an investment in four livestock carriers of \$A150 million with operating costs for each ship of \$A15 000 per day.⁷ The corollary is that Australian interests have either not had enough capital to invest in ships or were not prepared to risk capital in such a venture. The investment does not necessarily end with shipping but can extend to facilities in both Australia and the Middle East.

Government Investment in the Trade and Plutocratic Influence

3.14 Australian investment in the trade is through Australian pastoral houses and other commercial interests. Australian Government involvement is mainly limited to regulatory functions, although trade and diplomatic matters, in so far as they impinge on the trade, also remain within the Government's area of responsibility.

3.15 Middle Eastern companies own much of the infrastructure of the trade. Unlike Australia, many of these companies are controlled, directly or indirectly, by or come under the influence of the governments of their countries of which only Kuwait has an elected national assembly. Most of the countries in the Middle East that import live sheep from Australia are governed by ruling families, who also have strong commercial interests. These links between the commercial aspects of the trade and the interests of the Middle Eastern governments, although not clearly defined, confer commercial advantages on the Middle Eastern companies, for example through subsidies on bunker oil for their own ships. Although this does not preclude competition in the trade, it makes their companies artificially competitive with Australian or foreign interests.

Vertical Integration in the Industry

3.16 Four companies involved in the live sheep trade are vertically integrated, that is, involved in the ownership and operation of some or all of the following aspects of the live sheep export trade:

- . feedlots and feedmills in Australia;
- . separate buying organisations in Australia;
- . livestock carriers;
- . feedlots and other facilities in the Middle East; or
- . wholesale and/or retail outlets in the Middle East.

The companies are the Livestock Transport and Trading Co. KSC, Kuwait (KLTT); Saudi Arabia Livestock and Trading Co., Saudi Arabia (SLTT); Siba International, based in Italy and wholly-owned by Italians; and Rachid Fares Enterprises, based in

the United Kingdom and Argentina, and whose shareholders have registered addresses in the Lebanon, Argentina and Australia. They are responsible for approximately six million of the seven million sheep exported.⁸ However, there is evidence that the cost reduction, which it was hoped would be obtained by vertical integration, has not eventuated. In addition, profits have been eroded by increased competition in recent years.

3.17 With the exception of Metro Meat, there appears to be no horizontal integration in the industry between exporters of live sheep and carcase exporters.⁹ Although there is vertical integration, the Middle Eastern importers are not, ipso facto, tied to Australian supply but can, and do, import sheep from other countries.

Co-ordination and Regulation of the Trade

3.18 There are a number of organisations that co-ordinate the industry.

3.19 The Australian Livestock Exporters Association (ALEA) is the industry organisation composed of the principal exporters. It co-ordinates industry policy on political, welfare and industrial questions. It does not co-ordinate the conduct of research on an industry-wide basis or compile industry statistics.

3.20 The Association of Livestock Transport Veterinarians (ALTV) is a group of seven veterinarians who have at various times been retained as veterinary consultants by major exporters. Veterinarians involved with the trade are also represented through the Australian Veterinary Association (AVA) which convened a special working party on the trade in 1980.

3.21 Livestock agents involved in the purchasing and selling of export sheep are usually affiliated to the Australian Council of Livestock Agents (ACLA) although the larger pastoral houses are also members of ALEA.

3.22 The principal rural organisation involved with the trade has been the Sheepmeat Council of Australia. The immediate past president, Mr Ralph James, was a member of the 1982 Australian Sheep Meat Study Mission to the Middle East. The Sheepmeat Council and the Cattle Council are also represented on the ALEIAC. The National Farmers' Federation (NFF) and the State farmer organisations, such as the Victorian Farmers and Graziers Association, have become involved in local disputes such as at Portland where graziers have ignored AMIEU bans and loaded export sheep themselves. Transport operators, feedlot operators and feed manufacturers have no industry organisations to represent their particular interests.

3.23 The Australian Meat and Livestock Corporation (AMLC) is a statutory authority which issues export licences under the Australian Meat and Livestock Corporation Act 1977. Licences are issued only to exporters who meet standards which have been designed to maintain export quality. Orders issued under the Act are intended to ensure that the animals exported conform to importers specifications. If they are not met, the AMLC can withdraw the exporters' licences.¹⁰

3.24 The Australian Agricultural Health and Quarantine Service (AAHQS), formerly the Animal and Plant Health and Quarantine Service and before that the Australian Bureau of Animal Health (ABAH), is a division of the DPI, with responsibility for quarantine and animal health and welfare. It administers regulation 86D of the Quarantine (Animals) Regulations under the Commonwealth Quarantine Act 1908 which provides that:

'(3) A person shall not export a consignment unless the consignment has been examined at the port of shipment during the period of 48 hours immediately preceding shipment by a quarantine officer who is a veterinary surgeon.

(4) Subject to sub-regulations (5) and 86F (2), a quarantine officer who examines a consignment in accordance with sub-regulation (3) shall grant such certificates relating to the freedom of the consignment from disease or otherwise as the circumstances require.'

The administration of these Regulations at the loading port is undertaken by various State veterinary services acting as agents of the Commonwealth.¹¹ These State veterinary officers acting as quarantine officers, inspect the sheep in the feedlot for health and fitness to travel and are present at the wharf during loading. They are also required to ensure that conditions on the ship are satisfactory prior to, and during loading.¹² Under the Commonwealth Quarantine Act 1908 and associated Regulations, they issue the export certificate, without which the ship cannot put to sea.

3.25 In 1983, the Minister for Primary Industry appointed the Australian Livestock Export Industry Advisory Committee (ALEIAC). The ALEIAC is chaired by an officer of the AAHQs and has consultative functions only. It serves as a vehicle for discussion between government and industry. It has no provision for representation from the AVA, AMIEU, RSPCA or other animal welfare organisations.

3.26 The ABAH was responsible for the publication in 1981 of 'Sea Transport of Sheep', which attempted to document procedures and husbandry practices used in the trade and provided recommendations for their improvement. Subsequently it published 'Standards for the Preparation and Carriage of Sheep by Sea' which provided a basis for industry self-regulation and closer supervision by veterinary staff.¹³ The Standards were drafted in consultation with industry and government.

3.27 The AAHQs provides administrative support for the Sub-Committee on Animal Welfare of the Standing Committee on Agriculture. This Sub-Committee had its inaugural meeting in 1980 and has among its members representatives from State Departments of Agriculture. It has developed a number of model codes of practice including codes on road, rail, and sea transport of livestock and on intensive husbandry of sheep, which provide minimum standards for the export process. At present these model codes have no legal status. In Victoria, codes of practice based on the model codes may be admitted as evidence in court proceedings. The Western Australian Government, however, does not intend to introduce any element of enforcement into the codes.¹⁴

3.28 The Livestock Policy Section of the DPI administers the Customs (Prohibited Exports) Regulations. These require that the export of sheep and cattle must be authorised on a shipment by shipment basis by the Minister for Primary Industry or a designated officer. The purpose of these Regulations is to regulate or prevent primary industry exports as the need arises, for example the current restrictions on the export of merino rams.

3.29 The Department of Transport (DOT) administers Marine Orders Part 43, 'Cargo and Cargo Handling - Livestock' pursuant to the Navigation (Orders) Regulations of the Navigation Act 1912. The Marine Orders prescribe minimum standards for the transportation of animals by sea, subject to the safety of the ship, and were formulated by the LAC.

3.30 The Marine Orders provide for the inspection of a ship prior to loading livestock to ensure that the ship meets the requirements specified in the Marine Orders. It provides for aspects of animal welfare not directly attributable to the need for containment and control of livestock such as the approval of a government veterinary officer in regard to the animals'

fitness to travel. In addition, inspections are carried out to ensure that the ship complies with the requirements of the Safety of Life at Sea Convention 1974.¹⁵ All new ships fitted for live export are inspected by a DOT marine surveyor to ensure that the design and construction of the sheep pens, alleys and loading ramps conform to the Regulations. The Regulations provide for the furnishing of a Masters Report in which every ship's master reports the daily mortality level of animals at the end of the voyage. If the mortality level exceeds three per cent, the reasons for the high level of mortality are examined by Government authorities prior to loading being permitted on the next voyage.

3.31 The transport, assembly and loading of sheep within Australian jurisdiction also comes within the scope of State legislation for the prevention of cruelty to animals. The powers of inspection and action that can be taken by inspectors under this legislation vary from State to State. For example, under the Western Australian Prevention of Cruelty to Animals Act 1920, a special constable appointed under the Act has the right to board livestock carriers for the purpose of inspection and he may launch prosecutions for breaches of the Act. This right of inspection of ships does not apply in other States.

3.32 The co-ordination and regulation of the industry outlined above applies almost exclusively to the industry within Australia, except that the carriers must meet minimum standards. Once ships leave Australian waters, Australian influence, both government and private, over welfare conditions for export sheep at sea and in the Middle East appears to be limited. There are only rudimentary welfare regulations operating in the Middle East.

CHAPTER 4

THE PURCHASE AND SELECTION OF EXPORT SHEEP

District of Origin

4.1 In New South Wales, sheep for the live export trade have traditionally come from the western, low rainfall areas, but in 1984 there was an increasing interest in sheep for the trade from the high rainfall tablelands.

4.2 The constraint of distance and the cost of transport precludes sheep for the trade being obtained in Queensland other than from the southern border areas.

4.3 The south-eastern high rainfall areas of Western Australia have provided most of the 'boat sheep' from that State.

4.4 In South Australia, sheep have generally been obtained from the high rainfall areas but, at certain times of the year, up to 15 per cent of export sheep have come from the drier pastoral areas.¹

4.5 There has been conflicting evidence given on the advantages and disadvantages of sheep for the live export trade being obtained from the high rainfall or the low rainfall areas. The New South Wales Department of Agriculture stated:

'The selection of sheep from the lower rainfall areas of the state has the added advantage in that sheep from these areas are more accustomed to a diet based on dry roughage, as much of the animal grazing is

dry roughage. This is an added advantage in the pre-conditioning of these sheep in feedlots to shipboard diets.²

4.6 Both Dr Dobson of the South Australian Department of Agriculture and representatives of the ACLA commented that sheep obtained from the pastoral or low rainfall areas do not adapt well to the confinement of feedlots or ship pens.³

4.7 There is little empirical work available on the correlation of region of origin of sheep and their adaptation to intensive conditions. As lack of adaptation is one cause of losses in the trade, the Committee believes that priority should be given to research that will help to reduce these losses.

4.8 The Committee RECOMMENDS that the AAHQs ensure that research agreed to by the ALEIAC in February 1984, for which funding has been approved by the AMRC, on regional sources of sheep and subsequent adaptation to conditions on live sheep carriers, be commenced without delay.

Sex and Age Groups

4.9 The Livestock Policy Section of the DPI regulates the export of live sheep under the Customs (Prohibited Exports) Regulations. Section 3.1 of the 'Instruction to Regional Offices for Issue of Export Permit' states that: 'Exports of merino ewes are prohibited to all countries except New Zealand'. In addition, exports of entire Merino rams to all countries except New Zealand are subject to quotas and certain other restrictions. Sterilised Merino rams may be exported.

4.10 The original specification for export sheep was for old Merino wethers, that is four years or older, with a good sound mouth and an adequate body weight and length of wool. Sheep with broken mouths were not selected for export because it was

considered doubtful that they would survive the journey. It now appears that the average age of export wethers has dropped considerably. Dr John Lightfoot of the Western Australian Department of Agriculture commented that:

'(In Western Australia), the full mouth wether, once the mainstay of the wool industry, could now be classified as an endangered species ... On average there would be fewer than 30 animals remaining per farm.'⁴

4.11 In Western Australia, the average age of wethers shipped since 1981 has been less than three years with a growing proportion of export sheep being less than eighteen months.⁵ This may also have been influenced by the specification set out by the buyers. Four years ago most contracts stated that export sheep were to be aged 'up to 4 years.'⁶

4.12 The AMLC provided information on the percentage of sheep exported to the Middle East which were under two years of age: in 1983, 3.4 per cent; in 1984, 2.6 per cent and in 1985 to April, 3.3 per cent. These are minimum percentages and they do not include sheep under two years of age included in lines of sheep of mixed ages.⁷

4.13 According to the AMLC, Kuwait, which is the second largest importer, continues to import all ages. However, it told the Committee that:

'we export animals less than three years of age. They say they are doing this because they feel that the older animals are not the best to give to their consumers and they would prefer to give them the better animal. They still want the "hot" animal, the hot meat, but they would like them to be not quite as old and heavy as we have given them in the past.'⁸

4.14 The Committee received evidence that young sheep usually adapt to the conditions of the trade better than older sheep. However, care is needed in order not to select sheep too young as they would have difficulty coping with the additional stress of the voyage.⁹

4.15 The Committee RECOMMENDS that live sheep under two years of age not be exported until the AAHQs has completed an investigation as to the minimum age that should apply to export sheep.

Condition

4.16 Condition, not price, is the main criterion for selecting sheep for live export.¹⁰ A standard specification is for a 50 kg hard-fat wether. This means that 50 kg is the total live weight of a sheep in its state of purchase or delivered at the feedlot. Hard-fat indicates that it has been fat for some time.¹¹ All specifications have a minimum weight and the minimum individual weight and the fat score is invariably nothing under three (store condition) and preferably four (forward store condition). There is no indication that five score (over-fat) animals are used, as AAHQs standards specify that special care is to be taken with their preparation and there is a lower stocking density onboard ship. These welfare considerations have to be balanced against profitability as the heaviest possible sheep are needed to achieve the greatest cost efficiency of the livestock carrier.¹²

Breeds of Export Sheep

4.17 About 90 to 95 per cent of export sheep are Merino wethers.¹³ The main non-Merino breeds are the Polwarth and Corriedale, loaded from either Portland or Tasmania.¹⁴

4.18 Representatives of the ACLA told the Committee that there is no data available for the relative success of different breeds in their adaptation to shipboard conditions.¹⁵ Dr Batey of the ALTV commented on cross-bred animals:

'The limited experience would suggest that the animals do adapt very, very well, but there appears to be something of a breed difference and this does become apparent during the process. For instance, the long wool breed crosses such as the Border Leicester, the Romney Marsh and the Coopworth and the like tend to travel better than some of the fat breeds.'¹⁶

4.19 Dr John Lightfoot of the Western Australian Department of Agriculture believed that while the Merino is an ideal sheep for live export:

'More farmers are recognising that first cross lambs from Merino ewes can give earlier turn-off and more flexibility in production systems.'¹⁷

4.20 The level of sales of British based rams such as Border Leicester, Poll Dorset and Suffolk in Western Australia indicate the popularity of British breeds used as terminal sires in flocks managed for the live export trade.¹⁸

4.21 There has been little, if any, research done on the genetics of sheep that are best adapted to shipboard and feedlot environments. There has been no attempt to develop a breed of sheep for live export, although the possibility of fat-tail cross-breeds is examined in Chapter 15. This is a response to a marketing specification, not to a management or welfare specification.

Shearing of Export Sheep

4.22 The AAHQ5 standards specify:

'2.5 Sheep should be shorn in sufficient time before export to enable the animals to recover from the stress and/or injuries associated with shearing. It is desirable that shearing operations be completed not less than 7 days prior to shipment but acceptable alternative practices could reduce this period.'

4.23 These standards were published in 1982 but the ALEA advised the Committee that the industry-wide standard is a minimum of 14 days off-shears before receipt into feedlot.¹⁹ The ALEA also advised that most feedlots have shearing sheds²⁰ and there is evidence that some sheep are shorn in feedlots and do not stay there for the required 14 days.

4.24 The reason for not holding sheep off-shears in feedlots was amply demonstrated at Portland in March 1983 when 15 000 sheep died in feedlots as a result of cold stress. This disaster prompted the Victorian Department of Agriculture to introduce new standards:

'Following that incident we had discussions with the feedlot operators and implemented the number of points we intimated today that have changed that situation. The sheep that were arriving in those times were bare shorn sheep which are much more susceptible to cold stress. There were even sheep being shorn on the lot at the time and so we implemented the 14 day period. Sheep are not accepted on the feedlot unless they have been off-shears 14 days.'²¹

No other State has specific requirements for the shearing of sheep prior to receipt in the feedlot.²²

4.25 However, typical export sheep travel to the Middle East from one to two months off-shears, although at certain times they can have three to four months' wool.²³

4.26 The attitude of the industry is that a heavier fleece has no economic value to exporters, because they are not able to shear the fleece and the increased weight affects stocking density.²⁴ The relevant AAHQ standard is as follows:

'2.6 Sheep should not be forwarded for export if their wool length could adversely affect their ability to travel in reasonable comfort. An average fleece wool length of no longer than approximately 25mm is satisfactory and would enable the animals to be stocked at D.O.T. density requirements.

2.7 Sheep with an average wool length greater than approximately 25mm are to be stocked at a density less than the D.O.T. requirements which is suitable to their comfort as determined by the Government veterinary officer.'

4.27 It is difficult to determine how these standards are administered and how well the regulations are adhered to. This is discussed further in Chapter 15.

'Rubbish' Sheep

4.28 The Government veterinary officer responsible for the inspection of export sheep at the dockside has the option to reject animals 'whose welfare would be adversely affected if they were permitted to embark'.²⁵

4.29 The Model Code of Practice for the Welfare of Animals : Sea Transport of Livestock (Draft) specifies that animals which would be unacceptable for loading include those:

- . with clinical evidence of disease or parasitism;
- . in poor body condition;
- . with physical defects;
- . less than one week off shears (or a long coat in animals destined for hot humid climates);
- . which are heavily pregnant;
- . which are lame, blind or injured.

4.30 The AAHQS standards specify that these sheep should not be forwarded for assembly. Culling takes place mainly at the export feedlot both on arrival and on departure but a final inspection and culling takes place at the dockside.

4.31 The selection of sheep initially takes place at the farm but there have been comments about the prevalence of 'rubbish sheep' in the industry. Veterinary consultant Dr Peter Arnold commented at the 1984 annual meeting of the Sheepmeat Council of Australia:

'The farmer has got to stop giving us rubbish. In the fortnight between sale and pick-up he has the responsibility for those sheep - and that is not happening ... Those diet responsibilities belong to the farmer. Most farmers do it but you don't need too many to do a bad job to have a bad mortality rate.'²⁶

According to Dr Arnold, deaths are occurring in the first three days out to sea - too short a time for the ship to have influenced the sheep's condition.²⁷

4.32 The ACLA responded that, as a general rule, the farmer was not giving the live export industry rubbish.²⁸ It acknowledged that the farmer is responsible for the sheep between sale and pick-up but rejected the allegation that, in this period, sheep are often put into paddocks without sufficient feed or are neglected. 'It does not often happen. It happens in isolated cases and where it does happen it works against the vendor.'²⁹ The purchasers could reject any sheep at the time of delivery that did not meet the specification. The condition of maltreated sheep would become obvious after a few days.³⁰ However, when sheep are in short supply for a particular shipment, as occurs when several carriers are in port at the same time, agents sometimes are less discriminating in the quality of the sheep they purchase.

4.33 Mr Lloyd Beeby of the AMLC in a letter to The Land of 31 May 1984 commented that 'the very great majority of farmers supplying sheep to this trade take their responsibilities very seriously, a small proportion do not' and that 'there may be a few producers in Australia who could exercise greater care'.

Export Contracts

4.34 The AFAS commented in its submission that there is indifference to the mortalities aboard the carrier because 'the Arabs pay for the number that leave Australia alive. If they only paid for the number that land alive in the Middle East it might be a different story.'³¹ Dr T. Kempton, a livestock nutritionist, agreed:

'If a shipper is paid when the stock are loaded, as at present, there is less incentive to prepare them well compared to a shipper whose payment is based on the number and quality of livestock delivered.'³²

4.35 The Committee has received evidence that contracts vary considerably, that some are based on numbers and others based on weight, that payment may be FOB or part payment at port of destination. The ALEA told the Committee that Middle Eastern buyers:

'pay for the number that are loaded here in all cases, but in some cases there is a performance bond or only a proportion paid at that stage and the remainder is paid on the number that arrive and their weight.'³³

4.36 The KLTT itself monitors live weight by weighing sheep in trucks after unloading in Kuwait.³⁴ The ALEA agreed that there was an inducement to keep the live weight up but not always in all contracts.³⁵ The ideal would be contracts based on both live weight and numbers.

4.37 According to the AMLC, payment on shipped weight had been replaced by payment on actual weight unloaded except for some integrated companies that worked in numbers and not weights. It argued that this meant the exporter had a very real incentive to ensure weight loss and death were kept to a minimum.³⁶

4.38 There is the problem of payment, either FOB or a percentage payment, being withheld until delivery in the Middle East. The ALEA responded that most supplier companies in Australia insist on immediate payment and that it is accepted in international trade that payment is on an FOB basis.³⁷ This is also complicated by the procedures within the integrated companies which are 'absorbing all their losses of both weight and deaths within their own system.'³⁸

4.39 Mr Phillip King, then head of Rural Export and Trading (WA) (RETWA), the Australian subsidiary of KLTT, confirmed that KLTT did not use contracts:

'I give the company an indication of what the price will be, we determine where we will load the vessel, and it is loaded, and it pays.'³⁹

There is a long-term contract in the sense that the subsidiary RETWA has a shipping programme for the next twelve months.⁴⁰

4.40 Dr Temple Grandin recommended that contracts should be based on the number of live sheep delivered and not on weights. 'Contracts based on weights encourage salt feeding and detrimental changes in feed formulation which are designed to increase gut fill.'⁴¹ The Committee put this criticism to Dr David Franklin of the ALEA who replied that it was totally incorrect:

'I really find it difficult to imagine a feed miller putting in something which presumably would cost extra just to get weight. Most of the feed rations are formulated along certain lines and particular purposes. The story of putting in salt can be fairly dangerous when you are talking about large numbers of animals. I do not believe it is a practice which is followed anywhere in the trade.'⁴²

4.41 Mr Lloyd Beeby of the AMLC also dismissed the criticism.⁴³

4.42 It should be mentioned that the AMLC is responsible for the product quality of Australian livestock exports. It looks at the standards laid down in the livestock contract such as breed, type and weight and it is required to ensure that those minimum standards are met.⁴⁴

CHAPTER 5

ROAD AND RAIL TRANSPORT TO FEEDLOT

Duration of Journey

5.1 The ABAH Model Code of Practice for Road Transport recommends that for:

'mature ruminant animals (sheep, cattle, goats and buffalo), a rest period of between 12 and 24 hours should be provided after each 36 hours of travel. The period of travel may be extended to 48 hours if a full 24 hour rest period is then provided.'¹

These recommendations are identical for rail transport.²

5.2 The Committee has received conflicting evidence on the maximum duration of the journey from farm or saleyard to the export feedlot. The AMLC stated that sheep are purchased sometimes many thousands of kilometres from the port of loading and are then transported by road or rail to an assembly area or depot.³

5.3 One submission indicated that the rail journey from Armidale, NSW to the Adelaide feedlots could take three to five days.⁴ The Brennan Report indicated that it could take from two and a half to four and a half days to complete the journey from southern Queensland to Adelaide, a distance of approximately 2000 kilometres. This would include 24 hours for yarding prior to departure, actual road transport of 20 hours, arrival at feedlot after curfew of 12 hours and eight hours for holding in yards for drafting and vaccination. This makes a

total of 64 hours, that is nearly three days, without food and possibly without water. It does not include various additional delays which may occur.⁵

5.4 The ACLA supplied the following details of the maximum time for the journey to port from a number of centres : Dubbo, 16 hours; Cootamundra, 15 hours; Armidale, 22-24 hours;⁶ Bourke 24 hours.⁷ The ACLA believed that 24 hours was the maximum duration of the journey although it was suggested that there may be occasions when sheep going to Portland would take slightly longer.⁸ In Tasmania the maximum duration of the journey is about six hours.⁹

5.5 Some sheep are not sent from Queensland or northern New South Wales direct to Portland or Adelaide. They are held further south for six to 12 months and are shorn before being sent to Portland. There is also some evidence of specialist export operations being established on properties within reasonable distances of the feedlots.¹⁰

5.6 The stress of road transport has been implicated as a predisposing cause in the development of salmonellosis.¹¹ There is also the view that the duration of inappetance following transport is proportional to the length of starvation during transport.¹²

5.7 The AVA commented that 'prolonged periods of transport are contrary to the best interests of the welfare of animals and under certain circumstances may be inimical to the economic interests of the owners as well'.¹³

Road Transport Versus Rail

5.8 The NSW Department of Agriculture said that when sheep were first transported from New South Wales the majority went by train, but this has been reduced to about ten per cent.¹⁴

5.9 There is also evidence that, in Victoria, mortalities for rail transport are five times greater than for road transport; 0.1 per cent compared with 0.02 per cent.¹⁵ This has been attributed to the enforced, prolonged deprivation of food and water for the sheep.¹⁶

5.10 The AMLC emphasised that the rail system:

'particularly in some states, has not given due consideration to the animal welfare needs of the livestock. Hence producers and buyers have tended to adopt road in preference to rail as, in many instances, they are not prepared to accept the manner in which their livestock are treated.'¹⁷

5.11 Rail truck quality varies considerably among the States. The NSW Department of Agriculture suggested that in NSW the older trucks should be removed.¹⁸

Transport Design and Improvements

5.12 There is inadequate knowledge and control of stock crate design.¹⁹ There are suggestions that the standard of stock crate design employed in Western Australia should be used as a model for construction in the eastern States²⁰ and that there is room for improvement in the design of loading and unloading facilities.

Livestock Mortalities during Transport Phase from Farm to Feedlot

5.13 The available mortality statistics are meagre. There is no uniform recording system. Transport casualty classifications range from dead sheep only, to dead, moribund, lame, injured and 'downer' sheep. The Western Australian Department of Agriculture and the ALEA were not able to supply statistics to the

Committee. The Victorian Department of Agriculture was able to do so from spot checks on a confidential basis.²¹ Other estimates ranged from 0.04 per cent to 0.15 per cent although Elders told the Committee that it incurred mortalities of 0.2 per cent for 1983-84.²² This lack of statistics hinders research into sheep losses, both for the trade and also for the transportation of livestock within Australia.

5.14 The Committee RECOMMENDS that details of sheep mortalities sustained during transportation from farm to feedlot be forwarded to the AAHQs for collation and analysis.

5.15 A research project funded by the AMRC to analyse mortalities, including transport mortalities, is being undertaken in Western Australia.²³

Rejection of Livestock at the Feedlot

5.16 At the feedlot the sheep are drafted by both feedlot management and a representative of the exporter. The ALEA stated:

'We insist on total freedom of drafting off any that are not acceptable and there have been cases where we have sent back truck loads, either because we do not consider that they were the sheep that were bought or because we doubt that the buyer has inspected them - we are dissatisfied. We want to cull them at that stage because our investment in the sheep is minimal at that stage. Once the animal gets on to the feedlot, that is a quarantined area. The animal is then anthraxed and any culls after that must be held for six weeks before they can be moved.'²⁴

5.17 The sheep that are rejected fall into three categories. The damaged or badly crippled are humanely destroyed immediately. The lame are put onto grass in a separate paddock

and kept under observation. Underweight sheep are put onto feed for inclusion in the next shipment.²⁵ The rejects may be traced to their source if there is a line of 100 or more available, but this is often difficult to do because a shipment may include sheep from up to 200 suppliers.²⁶ Tracing is also dependent upon the legibility of the wool brands, if they are used.

5.18 The ACLA stated that if the sheep are rejected at the feedlot the owner bears the cost of their disposal but if the shipper has taken delivery at the farm gate, they are his responsibility.²⁷

5.19 The ACLA commented that feedlot delivery was introduced by the shippers²⁸ and has been the established practice in Western Australia and South Australia since the trade began. On-farm delivery is only occurring to any extent in New South Wales. In all other cases the vendor takes responsibility for delivering stock to the feedlot. It is perceived that 'if the producer has the responsibility for losses he will prepare his sheep better'.²⁹

CHAPTER 6

FEEDLOTS

6.1 Sheep intended for export are usually assembled and held in a feedlot near the port of loading for a minimum of four to five days, as prescribed in AAHQ standards, but often for longer periods. There are several reasons for holding sheep in feedlots prior to loading onboard a ship. There is the task of actually assembling up to 125 000 sheep on a specific date or series of dates, with always the possibility of unexpected delays in the arrival of the ship. The sheep also have to be inspected and possibly inoculated under quarantine regulations. Then there are welfare considerations; sheep having been subjected to the stress of up to 36 hours in a truck or train need rest before experiencing further stress in a new environment onboard ship. The sheep also need time to adapt to a more intensive system and to a different type of feed.

Duration of Feedlotting Period

6.2 The duration of the feedlotting period is principally determined by the time the majority of sheep take to adapt to a new feed regime. The length of the period is a compromise between welfare and economic factors:

'The combination of conditions that lead to the maximum profitability of an animal production operation involving many animals is not necessarily the same as the combination of conditions that leads to the maximum welfare of the animals individually. For example, calculating that preparation in a feedlot costs 25c/head/day, 100 000 sheep will cost the operator \$25 000 each day.

Reducing the time in the feedlot by one day is financially balanced by the death of approximately 570 sheep (0.57 per cent). Depending on contractual arrangements, it may be more profitable to let sheep die than to allow an additional day in the feedlot for additional adaptation to pellets or rest. In 1983, insurance was used extensively by exporters and importers to cover mortality losses during transshipment from Australia to the port of cargo discharge.¹

6.3 The above quotation may under-estimate the present cost of feedlotting as the Committee understands that the present daily cost is about 30 cents a sheep. However, premiums for mortality insurance would have risen in recent years because of the levels of mortalities claimed by exporters.

6.4 The basic consideration for adaptation to shipboard feed is the change in gut microflora. According to Dr D. Franklin, who represented the ALEA, it takes between seven and 21 days for a complete change although most sheep adapt fairly well in five to seven days. Research done by Dr Fels has shown that it takes up to 30 days for complete adaptation by every sheep.

6.5 The AAHQ standard is:

'2.9 Exporters should allow a minimum period of 4-5 days to prepare sheep off pasture to accommodate to the dry shipboard ration and to rest after travel.'

6.6 The source of the sheep can affect the adaptation period. The Western Australian Department of Agriculture studied 14 different sources of sheep, sheep from different properties with different backgrounds, and they found an 'enormous variation' in the acceptability of pellets and shy feeding. Some sheep readily adapted to pellets and ate them immediately, whereas other groups of sheep needed more time to adapt.²

6.7 The ACLA told the Committee that shippers ask livestock agents not to buy sheep from the pastoral area that have come off herbage. They prefer sheep taken off grass because their experience has shown that those sheep adapt and travel well while sheep coming off herbage tend to have problems.³

6.8 The Victorian Department of Agriculture believed that sheep arriving at the Portland feedlots during summer and autumn (November to May) off dry pasture could be prepared in a seven day feedlot period, whereas in winter and spring, sheep on green pasture would need a minimum of ten days.⁴

6.9 Dr Al-Dukhayyil, Managing Director of SLTT, stated that his company, on veterinary advice, specified that sheep were to spend a minimum of seven days in a feedlot before they were loaded on board a ship.

6.10 Tables 6.1 and 6.2 show the periods of feedlotting for individual shipments in Tasmania and Portland respectively. Apart from the two shipments from Tasmania in early 1983 which were not held in feedlots and, as the Committee understands, suffered high mortality levels, the average feedlotting period exceeded the prescribed AAHQs standards. However, the Victorian statistics refer to the period beginning when the first sheep entered the feedlot and ending when the last sheep left the feedlot. The average time spent in the feedlot was therefore probably between four and six days fewer than the number of days set out in the table.

Table 6.1: Tasmania - Duration of Feedlotting

Date of Departure	Ship	Number Loaded	Duration of Feedlotting (days)
January 1983	Al Yasrah	79 693	No feedlot
March 1983	Om Algora	37 319	No feedlot
April 1983	Danny F	33 000	6
January 1984	Mawashi Al Gasseem	90 356	7
May 1984	Fernanda F	85 745	10-14
January 1985	Mawashi Al Gasseem	90 507	8
March 1985	Al Qurain	50 057	6-8

Source : Tasmanian Department of Agriculture .

Table 6.2: Victoria - Duration of Feedlotting

Date of Departure	Ship	Number Loaded (Portland)	Duration of Feedlotting (days)
28/10/82	Al Shuwaikh	100 000	12
7/11/82	Al Qurain	100 000	12
25/11/82	Al Yasrah	90 000	14
11/12/82	Al Shuwaikh	110 000	10
24/12/82	Al Qurain	111 000	11
14/1/83	Al Yasrah	21 750	7
23/1/83	Al Shuwaikh	120 000	13
7/3/83	Al Shuwaikh	123 000	12
27/3/83	Al Qurain	69 000	12
19/4/83	Al Shuwaikh	126 000	15
20/5/83	Al Yasrah	98 000	10
16/6/83	Al Qurain	118 000	13
16/7/83	Al Shuwaikh	87 000	13
7/8/83	Al Yasrah	94 500	13
13/9/83	Al Qurain	88 500	12
4/11/83	Al Yasrah	103 000	14
23/11/83	Al Shuwaikh	119 000	16
9/12/83	Al Qurain	110 000	10
29/12/83	Al Yasrah	99 000	13
15/1/84	Al Shuwaikh	121 000	10
1/2/84	Al Qurain	88 000 (P)	7
21/2/84	Al Yasrah	60 000 (P)	7
11/3/84	Al Shuwaikh	122 000	10
29/3/84	Al Qurain	112 000	11
3/5/84	Al Shuwaikh	124 000	11
17/5/84	Al Qurain	64 000 (P)	8
7/6/84	Al Yasrah	104 000	11
19/6/84	Al Shuwaikh	57 000 (P)	8
4/7/84	Al Khaleej	36 000	8
21/7/84	Al Yasrah	106 000	10

(P) denotes part-loading at Portland.

Source : Victorian Department of Agriculture

6.11 It is obvious that the official standard of four to five days is inadequate and should be revised. The standards should also state that the specified period in the feedlot not include the days of arrival and departure from the feedlot.

6.12 The Committee RECOMMENDS that the AAHQs revise the standards to provide for a period of feedlotting of sheep of not less than seven days prior to export and that it be made clear that this period excludes the days of arrival and departure.

6.13 Further research is also necessary in this field and the main areas of research are outlined in the Brennan Report. The Committee noted that the Western Australian Department of Agriculture has been doing research in this field.

6.14 The Committee received information from a number of sources about the practice of 'topping up', where extra sheep are purchased to meet a shortfall in a shipment. Consequently, these sheep are not held in the feedlot for the required period to allow them to adapt to the new feed. Brennan refers to this practice in his report⁵ and Dr Al-Dukhayyil, Managing Director of SLTT, admitted that it had occurred twice with his company's shipments. However, SLTT has given strict instructions to its agents forbidding this practice and it is adding a demurrage clause into contracts which makes the supplier responsible for any delay in the departure of a ship caused by sheep, which have been received late in the feedlot, being held there for seven days.

6.15 The Committee RECOMMENDS that the AAHQs issues instructions to quarantine veterinary officers to prevent sheep, which have not spent the specified time in a feedlot, from being loaded on to a sheep carrier.

Feedlot facilities

Feed Troughing

6.16 According to the ALEA, about 85 to 90 per cent of feedlots have feed troughs. The others spread the feed on the ground. Brennan reported, however, that 'on ground feeding is still practiced in many instances'.⁶

6.17 At the feedlot near Devonport in Tasmania, where there were no troughs, it was explained that ground feeding was more natural for the sheep and encouraged 'shy feeders' to eat dry feed.

6.18 Dr Temple Grandin reported, however, that feeding on the ground is undesirable because it may predispose sheep to salmonella infection or it may allow the feed to become contaminated.⁷

6.19 Sheep are kept in feedlots for five days or longer to enable them to adapt to the new feed regime. This includes the need to adapt to dry feed and to eating from a trough. If troughs are not used in the feedlot, the sheep have to adapt to them, as well as many other facets of a confined shipboard environment, onboard ship.

6.20 If ground feeding is provided initially to sheep in a feedlot, sheep should still be introduced to troughs at some stage in the feedlotting process.

6.21 The Committee received information about the fouling of troughs in feedlots. It was suggested that feed troughs should be raised off the ground to prevent sheep from lying in and fouling them. It was also pointed out that sheep have to feed from raised troughs onboard ship. The Committee is of the view that feeding arrangements in feedlots should approximate those on the carriers to facilitate adaptation to those conditions. The Committee understands, however, that only one feedlot has raised troughs.⁸

6.22 The Committee RECOMMENDS that troughs in feedlots be raised to approximately the height of troughs onboard carriers.

Length of Feed Troughs

6.23 There was not unanimity of opinion among witnesses on the ratio of trough length to feedlot capacity. Both Dr Arnold and Dr Franklin of the ALTV criticised the current ratio in feedlots. It was explained that more troughs were needed for rationed feeding than for ad lib feeding. With rationed feeding, some sheep ate more than their quota thereby depriving other sheep of enough feed. Mr W. Gee, Acting Director of the AAHQs, told the Committee that research in this area is presently being done. The Committee is of the view that, in feedlots which use rationed feeding, there should be enough troughing for all sheep to feed simultaneously, unless the results of the research show unequivocally that sheep are not disadvantaged by not being able to feed at the same time.

Feeding Regime

6.24 A central component of the process of adaptation to a pellet diet is the feeding regime, but the question of adaptation duration and optimum feeding regimes has not been adequately researched.⁹ There is also the relative merits of a gradual introduction to pellets or ad lib feeding.

'It is very important in your adaptation period, if you are limiting fodder or restricting starch intake that you make available equal access to every animal.'¹⁰

Truscott et al. have suggested that feed be offered on an ad lib basis so that all sheep have access to the fodder.¹¹ There is also concern that allowance should be made in the feeding regime for climatic conditions such as, for example, additional hay at Portland during bad weather, and for the physiology of different groups of sheep such as cross-bred lambs off green feed.

Covered Feed Troughs

6.25 Many feedlots do not have covered feed troughs. Wet pellets disintegrate and any prolonged period of wet weather upsets the programme of adapting sheep to a pellet diet. Failure to adapt sheep to such feed may increase the mortality level at sea. This is contrary to good animal husbandry and welfare.

6.26 Officers of the Victorian Department of Agriculture expressed concern to the Committee about the lack of cover for troughs at the feedlots at Portland.¹² The AAHQs expressed a similar disquiet about Portland, which is prone to wet and cold weather in winter months, but indicated that the covering of troughs is not necessary for all feedlots in other areas which are not subject to the same type of adverse weather conditions.

6.27 Brennan reported that 'there is a general resistance within the industry to use covered feed troughs'. Dr Turner of the Victorian Department of Agriculture told the Committee:

'We have been working with our own officers in the Department seeking to lay down what might be an acceptable standard as feed trough coverage. For me to say that that was required, as it was pointed out to me by one of the exporters, is probably not right. What we should be seeking is a national standard.'¹³

Although national standards for the live sheep export trade are desirable, the existence or lack of a national standard should not prevent the adoption of measures to solve particular local problems. Both the Victorian and Federal authorities have acknowledged the need for covered feed troughs at the Portland feedlot. The absence of a national standard should not impede the installation of feed trough covering at those feedlots.

6.28 The Committee is of the view that feed troughs in export feedlots should be covered where there are problems or potential problems with weather conditions affecting the adaptation of sheep to a pellet diet.

6.29 The Committee RECOMMENDS that feed troughs be covered in export feedlots at Portland and in other places where there are problems or potential problems with weather conditions affecting the adaptation of sheep to a pellet diet.

Water

6.30 The provision of water to feedlots is generally considered to be adequate. The ALTV did comment, however, that 'there can be a lack of a backup system'.¹⁴

6.31 The Committee is of the view that government authorities should ensure that feedlots have an adequate water system which can maintain supply if breakdowns in the system occur.

Feedlot Layout and Capacity

6.32 Individual export companies have their own specifications for yard shape, yard size, flock size, stocking density and location of facilities. There is little research work available on any of these specifications and there is difference of opinion as to the merits of a highly intensive as opposed to a semi-intensive feedlot. The trend is away from the older highly intensive feedlot pens to the semi-intensive paddocks of five acres holding 1000 to 2000 sheep.¹⁵ In Perth, Siba manage a highly intensive system where the sheep are placed on grating floors and totally confined within a shed complex.

6.33 There is evidence that some feedlots accept more sheep than their normal capacities. For example, the ALTV commented that 'there are many feedlots that take (sheep) beyond their normal limits'.¹⁶

6.34 The Committee RECOMMENDS that the State Departments of Agriculture assess the capacity of each feedlot and ensure that the capacity is not exceeded at any time.

Dust and Drainage

6.35 The ALEA indicated that most, if not all, feedlots have sprinklers to keep dust down to minimum levels.¹⁷ The Victorian Government indicated that sprinklers had been in operation at both Portland feedlots for a number of years.¹⁸ The Committee encountered a dust problem at the feedlot near Devonport, Tasmania. No sprinkling system was installed but attempts were made to suppress the worst of the dust by watering the forcing yards and laneways near the loading ramps.

6.36 Dust was far more severe at the Elders Feedlot at The Levels near Adelaide at the time of the Committee's visit. Although the weather conditions were abnormal, it appeared that management had not done enough to establish windbreaks and to dampen the ground to reduce the intensity of the dust storm. Although some of the dust might have originated outside the feedlot, much of it seemed to be generated by the movement of sheep within the feedlot.

6.37 Drainage is also a problem for some feedlots. When the Committee inspected the feedlot at Fremantle, water was lying in the paddocks and spread onto the main laneway. Gateways and other heavily trafficked areas had become pugged. Under these conditions there is a potential danger of footrot occurring although the incidence of footrot in Western Australia is very low. Grandin reports that, to help control salmonella infections

and other diseases, puddles that sheep can walk through and defecate in should be filled in.¹⁹ At Portland, the feedlot management have complied with a request from the Victorian Department of Agriculture to fence off areas with bad drainage.²⁰

Shelter

6.38 Although very little accurate data has been collected on the need for shelter in feedlots, the lack of shelter at the Kobo Feedlot at Portland in March 1983 contributed to the death of 15 000 sheep in conditions of high winds and low temperatures.²¹

6.39 Dr P. Arnold told the Committee that shelter in feedlots was inadequate:

'We are concentrating 100 000 or more sheep in one area and the animals have virtually nowhere to go. So therefore we must be totally responsible for sheltering them from the extremes of their environment. Very few feedlots have organised, catered-for, shelter to protect 100 000 sheep.'²²

6.40 As a result of that disaster the Victorian Government required that no bare shorn sheep were to be accepted in the feedlot; that increased rations of hay be provided during cold, windy periods; that shelter belts be planted on the feedlots and that shelter sheds be erected. Shelter belts have been planted at Portland but they are a long-term solution to a pressing, immediate problem. The feedlot companies purchased scrubland adjoining the feedlot and the use of this as shelter has reduced losses. Five shelter sheds have also been erected.²³

6.41 The Victorian and Tasmanian Departments of Agriculture provided the Committee with details of feedlot mortalities. These are shown in Table 6.3.

Table 6.3: Tasmania - Feedlot Mortalities

Date	Ship	No. of sheep	A	B	C
January 1983	Al Yasrah	79 693	10	-	11
March 1983	Om Alqora	37 319	7	-	2
April 1983	Danny F	33 000	8	23	12
January 1984	Mawashi Al Gasseem	90 356	32	130	75
May 1984	Fernanda F	85 745	21	97	23
January 1985	Mawashi Al Gasseem	90 507	33	32	32
March 1985	Al Qurain	50 057	12	32	25

A: Number of mortalities during transport to the feedlot.

B: Number of mortalities in the feedlot.

C: Number of mortalities during loading from feedlot to ship.

NOTE: Figures given for mortalities include sheep which are euthanased because of serious transport injury or serious illness.

Source : Tasmanian Department of Agriculture

Table 6.4: Victoria: Feedlot Mortalities

Date of Departure	Vessel	Number Loaded (Portland)	Feedlot Mortalities	Rejects by D of A	Preparation 'losses' %
28/10/82	Al Shuwaikh	100 000	100	679	0.8
7/11/82	Al Qurain	100 000	180	690	0.9
25/11/82	Al Yasrah	90 000	315	515	0.9
11/12/82	Al Shuwaikh	110 000	105	472	0.5
24/12/82	Al Qurain	111 000	285	531	0.7
14/1/83	Al Yasrah	21 750	40	316	1.6
23/1/83	Al Shuwaikh	120 000	118	641	0.6
7/3/83	Al Shuwaikh	123 000	366	1302	1.3
27/3/83	Al Qurain	69 000	15 000	3189	20.8
19/4/83	Al Shuwaikh	126 000	1439	2250	2.9
20/5/83	Al Yasrah	98 000	1700	4219	6.0
16/6/83	Al Qurain	118 000	1770	5130	4.8
16/7/83	Al Shuwaikh	87 000	801	1049	2.0
7/8/83	Al Yasrah	94 500	230	2312	2.6
13/9/83	Al Qurain	88 500	438	1057	1.6
4/11/83	Al Yasrah	103 000	332	722	1.0
23/11/83	Al Shuwaikh	119 000	1718	1398	2.6
9/12/83	Al Qurain	110 000	270	996	1.1
29/12/83	Al Yasrah	99 000	127	618	0.7
15/1/84	Al Shuwaikh	121 000	100	715	0.7
1/2/84	Al Qurain	88 000(P)	42	666	0.8
21/2/84	Al Yasrah	60 000(P)	62	366	0.7
11/3/84	Al Shuwaikh	122 000	102	633	0.6
29/3/84	Al Qurain	112 000	306	900	1.0
3/5/84	Al Shuwaikh	124 000	102	973	0.8
17/5/84	Al Qurain	64 000(P)	64	305	0.6
7/6/84	Al Yasrah	104 000	100	440	0.5
19/6/84	Al Shuwaikh	57 000(P)	38	194	0.4
4/7/84	Al Khaleej	36 000	116	254	1.0
21/7/84	Al Yasrah	106 000	164	994	1.0

(P) denotes part-loading at Portland.

Source : Victorian Department of Agriculture

6.42 At Portland, the danger to the welfare of the sheep is wind, rain and cold. In other feedlots there is the problem of heat in summer. One solution to the maintenance of a satisfactory environment under all weather conditions has been the intensive shedding of sheep. The Siba complex at Perth has a

capacity approaching 80 000 sheep. Each shed houses 6000 sheep and provides all food and water within a completely enclosed environment. Dr Batey testified that those sheds did experience lower mortalities but this could also be explained by the use of young sheep.²⁴

6.43 Feedlots are used to rest sheep after transport to the point of assembly and prior to the rigours of shipboard conditions. At the same time, sheep are adapted to a new feed regime. The value of feedlotting sheep is wasted if sheep are not protected from the stress of adverse weather conditions. Adequate protection from extremes of weather conditions must be supplied to the sheep in feedlots. The nature of that shelter will vary from one feedlot to another depending on the situation of each and the varying weather conditions to which each is subject.

6.44 The Committee RECOMMENDS that adequate shelter be provided to sheep in the feedlots.

Feedlot Management

6.45 The health and welfare of sheep in export feedlots are dependent, not only upon feedlot facilities, but also upon the quality of feedlot management. Good management will make a feedlot with poor facilities work reasonably well but, conversely, a well designed feedlot with incompetent management may work quite inefficiently.²⁵

6.46 Responsibility for the welfare of the sheep in the feedlot rests with the feedlot management.²⁶ It was alleged from a number of sources that in some feedlots welfare matters were subordinated to other considerations. The main problem has been that no person, with either the authority or influence within the company, has been designated to oversight animal welfare from feedlot to loading onboard the carrier.

6.47 It was suggested by the ALTV that this task should be done by a company veterinarian. They argued that company veterinarians are aware of local problems and have enough influence or authority to take action in the interests of animal health and welfare.²⁷ The AVA has commented that situations occur where government veterinarians report a malpractice to a senior person in the shipping company and can only request that it be stopped. The AVA believes that the veterinarian should be given the necessary authority to stop that malpractice.²⁸

6.48 There has been a reluctance to innovate in animal welfare and management practices because failure might give a commercial advantage to competitors. Where innovation has occurred, it has been on a trial and error, rather than on a scientific, basis. The ALEA acknowledged this,²⁹ but added that 'over the last three to four years, conditions have changed quite dramatically to the point where there is an increased interest in pure scientific research in areas within the trade'.³⁰ The majority of that research has been done within the company itself, and not on a co-ordinated industry basis.³¹

6.49 A major research project funded by the AMRC will examine the scale of feedlot mortalities and its causes.³²

6.50 The Western Australian Government estimated feedlot mortalities at one per cent but this figure has not been confirmed.³³ The Victorian Government and the ALEA supplied details of losses at the Kobo feedlot, Portland, from October 1982 to July 1984. Mortalities were 0.92 per cent and rejects were 1.19 per cent giving total 'losses' of 2.11 per cent.³⁴

6.51 The Committee RECOMMENDS that details of sheep mortalities sustained during the period of feedlotting prior to export be forwarded to the AAHQs for collation and analysis.

Industry Feedlot Statistics

6.52 Statistics of feedlot operations, including mortalities, rejects, live weights, and age groups are kept within individual companies but are not forwarded to a central body from which industry statistics can be compiled. The ALEA acknowledged the need for compiling such statistics provided that they were used for the benefit of the industry.³⁵ The ALEA indicated that the AAHQs would be an appropriate body to undertake such a task.

6.53 Statistics of this part of the export operation need to be added to statistics of preceding and succeeding stages, to provide a basis for research into causes of death and other areas of concern.

On-Farm Feedlots and Specialisation

6.54 There is evidence that specialisation of sheep production for the live export trade has occurred, especially in Western Australia.³⁶ It is, however, difficult to estimate the number of enterprises specialising in this way.

6.55 There is also evidence of the lot feeding of wethers, including wether weaners for the export trade.³⁷ This latter practice is not very extensive. It is not practised, according to the ACLA, in NSW. However, in Victoria there have been some experiments in preparing sheep for the trade but these have not proved to be viable.³⁸

6.56 The Committee RECOMMENDS that the AAHQs, in consultation with the State Departments of Agriculture and the ALEA, draw up national standards for export feedlots.

6.57 The Committee further RECOMMENDS that the State Governments license export feedlots based on the proposed national standards and, should a feedlot fail to observe these standards, the licence for that feedlot be revoked, suspended or not renewed, as appropriate.

CHAPTER 7

NUTRITION AND FEED FOR LIVE SHEEP EXPORTS

7.1 'Shy feeders' is a term commonly used in the live sheep export trade. It refers to inappetence or the inability or unwillingness to eat fodder aboard ship or in the feedlot. One explanation for this inappetence is the quality and type of the fodder used and its administration. Professor McManus of the University of New South Wales gave evidence that export sheep arrived at feedlots in conditions of stress. He regarded it as important that sheep be introduced to a diet which was not only nutritionally correct but was palatable. If the sheep did not eat, they would enter a fasting or starving state.

Feed Quality

7.2 There is evidence that prior to 1980 there was no feed quality control available to the industry. In that year Dr P. Arnold and Dr. D. Franklin approached Professor R. Leng of the University of New England to assess the quality of feed given to export sheep. Professor Leng analysed samples until mid-1984.¹

7.3 The marine surveyors of the DOT are empowered to stop the loading of sheep if, on the advice of the quarantine veterinary officer, feed quality is not satisfactory.² The Chief Marine Surveyor in the DOT told the Committee that fodder has never had to be replaced onboard a ship.

'Many have been borderline, from comments surveyors have made but I have certainly not been consulted by veterinarians on the matter or told that it was unsatisfactory. I cannot

remember a ship being detained until the fodder was replaced - not in the past 12 years.'³

Several deficiencies in feed quality have been reported to the Committee.

Dusting, Powdering and Crumbling of the Pellet

7.4 The Chief Marine Surveyor advised the Committee that marine surveyors at the loading ports had reported that pellets have been seen 'to be powdering and falling to pieces.'⁴ Another witness, a licensed special constable under the Western Australian Prevention of Cruelty to Animals Act, also reported the disintegration of pellets.⁵ Dr Temple Grandin reported that some batches of Western Australian pellets were 50 per cent dust when they reached the trough aboard ship.⁶ Crumbling and dusting of the pellet has been recognised as a problem by the AMLC and the South Australian Department of Agriculture, among others.⁷

7.5 Pellet dust may clog the automated feed distribution system aboard ship. It is less palatable and nutritious⁸ and may cause 'pinkeye' and respiratory problems. The cause of crumbling has been attributed to the mechanical rubbing in the handling equipment and the lack of a suitable binding agent.⁹

7.6 The ALEA responded that there has been much more research done on fodder production since early 1983 and that the dust problem has been reduced substantially. However, the ingredients of the pellets, such as grain, hay and oat husks would produce dust if put through the system by themselves.¹⁰ The handling systems have changed radically over the last two to three years. Pneumatic air systems have given way to belt systems, pulley systems or screw worm augers.¹¹ In addition the particle size has been increased which has diminished the dust problem.¹²

7.7 Binding agents are used to prevent crumbling of the pellet. There are active binders and passive or inert binders. Among the latter are wheat proteins, advocated by Professor Leng, but as yet unaccepted by the industry because of the fear of lactic acidosis;¹³ molasses, the use of which has become quite widespread;¹⁴ and, possibly, sodium bentonite, regarded by some authorities as a binding agent. Of active binders, the example has been given of alkali binding agents which induce chemical changes in the pellet material.¹⁵ Binding agents encourage voluntary feed intake and enhance digestibility, but there is a delicate balance between a pellet that will not crumble and one that is too hard for the sheep to eat.¹⁶

7.8 There is also evidence that, in order to reduce dust, the pellet material should not be hammer milled or ground but should be available as chaffed materials.¹⁷ At least one feed mill has discarded hammer mills and invested in production equipment for chaffed materials.

7.9 The Committee RECOMMENDS that the DOT, in consultation with the ALEA and AAHQs, commission research into the use of binders and other methods to reduce the incidence of pellet crumbling and dusty feed in feedlots and aboard ships and to establish a minimum standard of pellet cohesion to be incorporated in the Marine Orders and Code of Practice.

Digestibility

7.10 The digestibility of pellets varies widely. The ALEA stated that optimum in vivo digestibility was in a range of 50-60 per cent in the rumen sac after an elapsed time of 24 hours. At times, however, it has been as low as 30 per cent.¹⁸ Other evidence indicated that it could be lower than 20 per cent. Pellets of low digestibility accounted for five to ten per cent of the samples taken by Professor Leng.¹⁹ Determining the

digestibility of a feedstuff is not a simple procedure. The in vitro method of analysis attempts to simulate in a laboratory, the digestive system of a sheep. It is time-consuming and expensive²⁰ but accounts for about 90 per cent of all analyses.²¹ The protein content is often analysed but the digestible energy is rarely analysed. In Western Australia, analyses are done by the Department of Agriculture, not by the industry.²²

7.11 The results of some analyses conducted on commercially prepared feedstuffs, as used by the Sheep and Wool Branch of the Western Australian Department of Agriculture in the course of experiments done in 1982 on the behaviour of sheep during export, are as follows:

Table 7.1: Analyses of Feed

Experiment	Crude Protein (DM%)	Crude Fibre (DM%)	In-Vitro Digestibility (DM%)
1	12.8	13.0	65
2	12.9	13.0	65
3	9.9	11.8	68

Source: WA Department of Agriculture, Supplementary Evidence, 9 November 1984, Attachment 3.

7.12 Dr D. Franklin, representing the ALEA, said that a low level of digestibility had only been a problem in Victoria at a fairly new mill which has now improved its equipment and handling systems.²³ He stressed, however, that high rather than low digestibility may be more significant because it may indicate a high grain content which may lead to digestive problems, such as acidosis. This was confirmed by Professor Leng.²⁴ Low digestibility may not be a problem if sheep are given enough feed to meet their energy needs. In fact, it may be a safer feed.²⁵

7.13 Particle size is important for digestibility. If composite particles are too fine, it can lead to the condition 'parakeratosis', a thickening of rumen papillae, which is a major site of nutrient absorption from this organ. In vitro studies do not account for what happens in the rumen because particles are being removed from that system all the time. If a fibre particle is too fine it will be swept out of the rumen sac before it has been digested.

7.14 There is the further complication that the pellet manufacturing process requires a small particle size.²⁶ The ALEA commented that exporters have created problems for the feedmills, which have traditionally manufactured pig and poultry pellets, because the latter do not need the same type of roughage. The particle size can be changed by changing the size of the screen on the hammer mill.²⁷

7.15 It has been argued that the percentage of digestible fibre is determined by economics.²⁸ For example, if a diet is administered which is high in energy, approximately 16.5 megajoules, the sheep would require approximately 50 per cent less feed which is about 8 megajoules of energy. If it is highly digestible the sheep may only require 10 megajoules. It is a trade-off between price and quality (digestibility).

7.16 The Committee received information that Australian feed manufacturers were being driven by market forces to put lower and lower nutrient quality into their products. Professor Leng commented that the pellet price was always too cheap at about \$120 per tonne. The millers had attempted to correct these feed problems but were constrained by the price level.²⁹

Low Protein, Low Energy, Insufficient Roughage in the Pellet

7.17 The ALEA stated:

'At times we have found that the protein level has been slightly too low. We will then immediately advise the manufacturer or whoever, depending on who owns it. The necessary adjustment would then have to be made to bring it back up. There will be slight variations in the nutritive value of hay from different areas. The nutritive value of grain, oats or barley will vary from one year to another and from one area to another so you have to regularly test this.'³⁰

7.18 The Victorian and Western Australian Departments of Agriculture conduct tests for crude protein level. The latter commented that the exporters tend to use protein as an index of feed quality. Energy content of the ration is also important,³¹ but is meaningful only when considered in terms of digestibility, that is, available energy.

7.19 Low energy content interacts with a number of other environmental and nutritional variables such as previous nutrition, exercise, temperature, response to noise or restraint and cumulative stress. There is little available research on these interactions.

7.20 Some pellets have insufficient roughage or fibre. There is a conflict between the need for fibre and a pellet which can be handled in big bulk feeding systems.³² A sheep requires structural fibre but the pellet specification may completely overlook this and the pellet analysis also may not refer to it. The optimum type or length of roughage has not yet been determined.³³ Ruminants in university laboratories have made do with minimal roughage, with materials which are basically powders, but the experience of the industry is that roughage is necessary to help digestion. This roughage requires a minimum length and size.³⁴

7.21 Professor Leng commented that fibre is a difficult material to include in the pellet in terms of both economics and logistics, but is more effective than ground fibre in inhibiting acidosis. He suggested that the problem could be overcome by the use of bentonite and buffers.³⁵

7.22 There is also evidence that manufacturers produce pellets which contain high levels of low quality fillers such as rice hulls with 12 or 13 per cent digestibility³⁶ in an effort to reduce cost.³⁷ Mould may also become a problem in the feed bins if moisture levels are high and the bins are not cleaned out after each voyage.

Feed Standards

7.23 There is no single uniform feed standard for the livestock export industry.³⁸ Standards do apply to feed for Australian domestic livestock consumption. Livestock export feed standards should at least match these domestic standards. The considerable variation in the analysis of the pellet produced, compared with the specification of the pellet requested by the exporter,³⁹ indicates the need for a uniform standard to act as the basis for some form of regulation. The uniform standard would redress the problem of the efficiency of in vitro testing procedures in that it could specify a standard testing procedure.

7.24 The Committee RECOMMENDS that AAHQs arrange for research to be done to draw up minimum standards for pellets to maintain body weight and to ensure the nutritional welfare of the sheep in the feedlot and aboard the carrier.

7.25 The Committee also RECOMMENDS that a uniform pellet testing procedure be carried out either by a government authority or an independent body for each shipment of sheep and that the results of these tests be forwarded to the feedmill, the shipper, the relevant State Department of Agriculture and the AAHQS.

Feed Pellets: Possible Alternatives and Modifications

7.26 The Committee has received criticism that 'the pellet was designed for ships and not sheep'⁴⁰ and the industry is only now starting to recognise the problems of content and administration of pellets. Some alternatives have been suggested and these are discussed below.

7.27 Straight grain feeding is one alternative as it does not require processing. However, grain feeding gives rise to the problem of acidosis or 'grain poisoning' in sheep that have not been prepared for a diet with a high grain content. Inadequate preparation for such a diet will also cause pulpy kidney.

7.28 The ALEA also commented that there has been concern in the industry about the feeding of grain in large quantities to groups of sheep where their individual intake cannot be controlled. This concern has delayed extensive research into feeding of grain. Nevertheless, a number of companies have done small trials with grain.⁴¹

7.29 The Victorian Department of Agriculture conducted trials on grains added to feed rations to determine whether this 'would provide some advantages for the pelleting of the feedstuff, its palatability, its acceptability to sheep and its safeness in being provided as a feed'.⁴² The assumption was that the high fibre content of oats and the low starch content of whole peas would minimise acidosis. Legume grains were known to have a high protein and calcium content which correct these

deficiencies in the oat ration.⁴³ The research found that it was not beneficial to the sheep and in certain mixtures was disadvantageous. The Western Australian Department of Agriculture also had reservations:

'Cereal grain is readily available and it has a high energy content; it has normally got adequate protein, is easy to handle, and you can put it on board ship. It sounds like very logical feed stuff, but I think it is this problem of acidosis in newly introduced sheep which has prevented the industry from adopting the cereal grain feeding.'⁴⁴

7.30 Professor McManus argued against straight grain feeding and commented that of the mortalities suffered, on the early shipments which used straight grain feeding, 20 to 30 per cent could have been attributed to lactic acidosis.⁴⁵

7.31 There is also considerable variation in grain quality owing to seasonal conditions and regional differences. This is reflected in the price of the grain.⁴⁶

7.32 Hay was the feed used aboard ships in the early days of the industry and is still used in the feedlots for adaptation to pellets. Hay was discontinued as a shipboard feed because of the large amount of space required to store it and the extensive handling systems needed to distribute it.⁴⁷ Hay also presented a greater risk of spontaneous combustion and fire.⁴⁸

7.33 Some of the problems associated with hay have been solved. Hay wafers are a possible type of feed. American companies now make mini-bales of hay two cubic centimetres in size.

7.34 There have also been attempts at using alkali treated straw in pellets together with some grain and urea and additives but this has been rejected because of the high salt content.⁴⁹

However, there is contrary evidence that alkali treatment of fibre materials in pellets will increase overall hardness and digestibility.

7.35 Professor Leng said alkali treatments presented the logistical problem of amassing large quantities of straw and materials close to the mill. He believed that the treatment was unnecessary as it increased digestibility from 50 to 60 per cent for only 30 to 40 per cent of the diet. He regarded it as an academic approach rather than a practical approach.⁵⁰

7.36 Professor Leng advocated the use of urea as a protein supplement in pellets but he believed that the importing companies in the Middle East wrongly believed that urea was a dangerous compound and would not allow its use.⁵¹

7.37 Sodium bentonite has been suggested as a suitable buffering agent in pellet feed for the prevention of lactic acidosis by modifying rumen fermentation.⁵² Evidence suggests that it also increases the acceptance of pelleted feeds by sheep, thereby reducing the incidence of shy feeders. It also improves the binding of the pellet. Bentonite may be administered as a supplement to pellet rations in the form of a stock block.⁵³

The Handling and Administration of Fodder

7.38 It has been argued that if sheep have to change from one type of pellet to another, they may suffer a digestive upset. The further argument is that few mills are able to produce enough of one type of pellet for ships with a capacity of 80 000 sheep or more. The ALEA responded that there is a slight variation from feedmill to feedmill. However, in terms of nutrition, the variation is limited provided the same basic raw materials are used and the specifications are adhered to. Some companies use more than one feed supplier to ensure that they

have adequate feed for loading. Conversely, there is evidence that some feed companies alter the composition of the pellet without the knowledge of the exporter.

7.39 The same argument of continuity of pellet supply would apply in the feedlot vis-a-vis livestock carrier. The ALEA replied that there is no evidence that a change of pellet necessarily makes any difference:

'A pellet is hay and grain plus some additives. So if you are feeding those out separately you are basically adapting the animal to the pellet.'⁵⁴

7.40 There is also the requirement for feed which will ensure the adaptation from paddock feed to pellet hence the use of high fibre pellets, those which may break down with the use of shipboard handling systems.⁵⁵

CHAPTER 8

EMBARKATION OF EXPORT SHEEP

8.1 The loading procedure adopted by exporters consists of assembling a shipment of sheep and assessing the weight of the animals. This provides the basis for load numbers and their distribution aboard ship. This is summarised in a loading plan which is in the charge of the chief officer of the ship. The waterside workers are responsible for handling the sheep from the trucks, through the inspection races and along the loading ramp onto the ship. The ship's crew are then responsible for putting them in pens.¹

Dockside Facilities

8.2 Facilities for handling sheep at the dockside may be of temporary or permanent construction and vary in design. The AVA has expressed concern about the design of facilities used in the loading and unloading of livestock.² This applies to the races, pens, yards, ramps, gates and flooring at the dockside and also ancillary features such as lighting and shade.

8.3 The AAHQS has been aware of these criticisms and in 1983 commissioned a consultant on livestock handling, Dr Temple Grandin, to do a survey of the export of Australian livestock. With regard to facilities, she concluded that the handling system used in Fremantle to load the large ships was excellent and that they should be used as a model for other ports.³

8.4 At Fremantle, Fares and Siba used a loading system of a series of trailers with four or six unloading ramps where between two and five trucks could unload at a time. In this system the trailer floors were at the same height as the truck lower deck and unloading ramps were only required for unloading the top deck. It also enabled the inspectors to examine the sheep at eye level enabling them to observe the underside of the sheep for such conditions as pizzle rot. The ship's wide ramps had wheels which rested in guides on the trailer allowing the ramp to move with the tide. The steepness of the ships ramps was reduced by the use of the trailers. However, it had no provision for storing culled sheep on the wharf. The Committee inspected this system in operation at Fremantle during the loading of the 'Al Khaleej' on 15 August 1984.

8.5 On 16 August the Committee received evidence from Mr Anthony Fletcher who, independently, had observed the loading of the 'Al Khaleej'. He commented:

'the pens aboard the "Al Khaleej" were not as compact, not as dense in terms of the number of sheep in those enclosures as on the ships that I visited in January ... Yesterday I actually saw white Australian workers on the ship assisting with the loading, as though they were trying to ensure that sheep were not overloaded.'⁴

He also commented on the loading of the 'Siba Queen'

'I saw sheep coming rapidly off the ramp between the trucks and the ships. The floor of the ship became wet and the sheep were required to make a right angle turn as they entered the ship. Almost all of them were falling to their knees and then sliding, trying to get up and then carrying on. That particular aspect of the loading certainly was not conducive to the welfare of the sheep. Nobody attempted to do anything to alter the situation ... Probably the ship was not designed for loading sheep properly.'⁵

8.6 The provision of non-slip surfaces and the elimination of wet areas is an important aspect of loading facilities and is incorporated in Marine Orders Part 43 Section 26. An inspection of a relatively new SLTT carrier, the 'Mawashi Al Gaseem', revealed that effective non-slip surfaces had been applied to the decking.

8.7 Apart from being well-designed, facilities need to be properly maintained, cleaned and arranged at the dockside. The AAHQs reported that there is often a failure to clean facilities on a regular basis:

'This can only result in contamination of sheep prior to loading. The loading management plan must include arrangements for yard cleaning which will result in the loading of clean sheep.'⁶

8.8 There appears to be considerable scope for improvement in the tally system. Dr Peter Arnold indicated that tally disputes of between two and three per cent are common.⁷ The ALEA responded that the sheep are counted five times, at the farm gate, into the feedlot, out of the feedlot, onto the wharf, and onto the ship. At Portland, the port authority does the count which is accepted by both the exporter and livestock agents.⁸ Dr Temple Grandin reported that, at Fremantle, sheep were counted manually by people with hand counters as the sheep passed through the single file races. She suggested that an automatic counting system be installed, which would use a meat works conveyor fitted with an electric eye or feeler switch.⁹ The technology and its application is already in use in some shearing sheds.

8.9 The Committee notes that an accurate count is essential for research into sheep mortalities.

Weather Conditions

8.10 There was disagreement among witnesses as to when loading should be stopped during extreme weather conditions. In March 1984, the RSPCA criticised the loading of sheep on the 'Al Qurain' in adverse conditions.

8.11 The Committee received a similar report of that incident of 26 March from Miss Chris Larter, a British animal welfare worker on a visit to Australia sponsored by the Brooke Hospital for Animals, Cairo.¹⁰

8.12 The AVA informed the Committee that, in November 1982 at Portland, 50 000 sheep were loaded during very high temperatures, which were exacerbated by a hot northerly wind and dust. About 120 sheep collapsed from heat exhaustion. It was agreed between exporters and departmental officers that in future, under similar conditions, loading would stop.

8.13 The Committee **RECOMMENDS** that the AAHQs draw the attention of quarantine veterinary officers to the need to halt loading under unsuitable weather conditions.

Embarkation Management - Practices and Malpractices

8.14 A principal consideration in the embarkation of sheep is the minimisation of stress. The ALEA believes that stress is minimised on the newer ships because they have an efficient loading ramp system and there is no reason for the sheep to baulk, turn around or change direction. Little crew handling is necessary and sheep have been loaded at a rate of up to 6000 an hour. Sheep spend little time between the feedlot and the shipboard pen, thereby avoiding much stress. Some of the older ships, however, do not have modern loading ramps and passageways and, as a result, loading takes longer and is not as efficient, with more stress put on the sheep.

8.15 The ALEA told the Committee that every attempt is made to have feed and water available in the pens when the sheep are loaded¹¹ but, if this is not possible because of the design of the ship, to provide feed within the first 24 hours.¹² The Victorian Government has tried to ensure that, wherever the design of the ship will allow, the export company will place food and water in all troughs prior to loading so that sheep have access to feed and water immediately upon loading.

8.16 Stress can be minimised if the waterside workers, stockmen and ship's crew are properly trained or experienced in the handling of sheep. Mr Anthony Fletcher observed at Fremantle that one of the wharf workers was standing in front of the animals that were being loaded, 'which tended to make them stop in their tracks. The people at the other end then got angry and started hitting certain animals. It seems to me that the problem is human in origin, a lack of knowledge rather than the animals' fault'.¹³ Dr Temple Grandin observed at Adelaide that:

'The wharfies need to be educated in sheep handling methods. There was no brutality or rough treatment of the sheep by the wharfies.'¹⁴

8.17 The South Australian Government has proposed a training programme for waterside workers but this has not been endorsed by the industry.¹⁵

8.18 The use of prods may increase stress in sheep. The unreleased draft Model Code of Practice for the Welfare of Animals : Sea Transport of Livestock restricts the use of electric prods and continues:

'"flappers" ... or "metallic rattles" are effective in that they encourage movement in response to sound. The use of sticks, lengths of heavy plastic, metal piping or heavy leather belts should not be permitted as methods of encouraging stock to move.'¹⁶

8.19 The Committee observed that the loading of sheep on to trucks at the Aberdeen feedlot in Tasmania for the 'Mawashi Al Gaseem' was achieved by forcing the sheep up the ramps by shaking rattles made from aluminium cans and pebbles, accessories which, if not euphonic, were effective and readily available.

8.20 The Committee also observed the loading of sheep aboard the 'Al Khaleej' and noticed no prodding or abuse of the sheep. Mr Anthony Fletcher told the Committee that at the adjoining berth the day before:

'I spoke to one of the wharf workers who was, in my view, prodding animals excessively when blockages developed in the loading, irrespective of the fact that sheep at the back of the crowd cannot very well push the others on. Certain animals were getting prodded to the extent that the animal I was concerned about was physically shaking but was continuing to be prodded. I spoke to the wharf worker, who explained his point of view that he was trying to assist in the operations, and the situation was solved amiably. The interesting thing about yesterday (i.e. the day of inspection of 'Al Khaleej') was that when I returned to the wharf and somebody saw me as a stranger down there, not somebody who had seen me the previous day, he went round to all the people with prods and discreetly - to my way of thinking - advised them not to prod the animals. They all just stopped dead when I was on the wharf. That is not normally the case when I am on the wharf but I feel that the visit of the senators was obviously known yesterday.'¹⁷

8.21 The Committee RECOMMENDS that the AAHQs, in consultation with State Departments of Agriculture, arrange training programmes for waterside workers who load animals on to carriers.

8.22 Another consideration in the minimisation of stress is the use of 'Judas' sheep which would make it easier to induce sheep, which have baulked, to walk up the loading ramp.¹⁸ Grandin recommended the use of Judas sheep but recognised that there may be quarantine problems.

8.23 There is evidence that overcrowding of trucks from the feedlot to the wharf occurs.¹⁹ The AAHQ standards state that where internal gates are provided in vehicles to maintain an even load, 'the exporter or his agent should ensure their use'.²⁰ This is in addition to the requirement that the transport should be clean, maintained in a satisfactory state of repair and not overstocked. Sheep's legs have been observed to project through the stock crate.²¹ There is a need for better design of stock crates. This problem will be examined by the Committee later in the inquiry when it examines road and rail transport of livestock.

8.24 There is evidence that 'shandying' of sheep occurs; that is, the mixing of lines of sheep of different ages, breeds and district types. This practice has been developed in the industry in order to use experienced sheep to introduce inexperienced sheep to hand feeding and watering in yards. This practice is detrimental to the younger sheep.²²

Stocking Densities

8.25 Stocking densities aboard livestock carriers are inextricably linked to economic considerations. It has been argued that, since shipping costs are about half the total cost of landing export sheep in the Middle East, a ten per cent increase in floor space would increase the cost of export sheep by five per cent.²³ The important welfare consideration is that five extra sheep placed in a pen of 60 head adversely affect 65 sheep, not just the extra five. The Marine Orders Part

43 Section 23.11, and the draft Model Code of Practice on Sea Transport of Livestock, contain the following specifications for pen stocking density.

Table 8.1: Specifications for Pen Stocking Density

Average Mass of Sheep determined in accordance with Section 23.1.3 (kilograms)	Minimum permissible floor area per sheep having an average wool length of not more than 25 millimetres (square metres)
20 or less	0.24
40	0.29
60	0.34
80	0.44
100	0.54
120 or more	0.64

Source: Marine Orders, Part 43, Section 23.11.

8.26 Animal Liberation NSW provided evidence of their inspection of MV 'Procyon' in July 1982, which was loading at Port Adelaide:

'When asked how many sheep were loaded per pen a wharfie explained to us that when a pen "looked full" that was considered satisfactory.'²⁴

8.27 Mr Anthony Fletcher gave evidence to the Committee that pens on the 'Al Yasrah' and 'Siba Queen' were 'stocked so tightly that the animals were not able to lie down'.²⁵ The evidence of Mr Fletcher is supported in part by Dr Temple Grandin who observed that:

'the crews made a genuine effort to load the correct number of sheep into each pen, but sometimes they could not shut the flat gate

until five or six extra sheep ran into the pen. Some of the pens appeared to be overstocked.'²⁶

8.28 Lt Colonel Harries of the South Australian RSPCA, on his voyage on the 'Al Qurain' in March-April 1981 found that only four to six sheep of 20 head could lie down if the gates were closed.²⁷

8.29 The Committee, on its inspection of the 'Al Khaleej', noticed stocking limits stencilled on all the pens. At the public hearing the ALEA was asked whether they were strictly adhered to. Dr Franklin replied:

'As strictly as possible, yes. In the ship we saw this morning it is easy to get a fairly accurate count, as you can imagine. That figure is put on probably two days out of port or the first day in port prior to loading, after the master has been advised that the weight of the ship will be such and such. He then has a master plan of his ship, showing that the pen on deck 2 or whatever it is can take so many sheep at 53 kilos, and at 54 kilos it can take one less or whatever the figure is.'²⁸

8.30 It has been argued that the accurate measurement of sheep weights is necessary if stocking density regulations are to be complied with.²⁹ The ALEA stated that the sheep are weighed out of the feedlot:

'An estimate is made prior to loading commencing and, towards the end of the loading when you possibly have 5000 sheep to go, you would say that the average weight out so far is 52 instead of 54 so we can continue or it is 54 instead of 52 and it would be cut back. These figures are available to the Department of Agriculture and Department of Transport so that the correct calculation can be made.'³⁰

8.31 Brennan has reported that overloading of vessels has occurred and should be prevented by checking the weight of the sheep before embarkation.³¹

8.32 Inspection procedures need to be able to meet these contraventions. The Victorian Government, acting as an agent of the Commonwealth, attempts to monitor stocking densities:

'While loading is actually taking place on a particular deck or a row of pens, it is best not to interfere at that point. But once, for instance, a deck has been loaded, we would certainly have a look through that deck to see whether overcrowding occurs and, if it does, we would bring it to the attention of the ship's officers or the exporters. This would be a continuing thing during the loading and certainly on final inspection.'³²

8.33 The Committee RECOMMENDS that quarantine veterinary officers inspect carriers before departure to ensure that stocking densities are complied with.

8.34 The adherence to the regulations is flexible but there has been criticism of the regulation itself. Dr Temple Grandin interviewed ships' officers and veterinarians who indicated that the present stocking rates may be too high for the 55 kg plus sheep.³³

8.35 The Marine Orders regulate pen stocking densities but these are circumvented to a varying extent. The pen stocking density regulations may be too tight for the larger sheep. Dr Temple Grandin interviewed several ships officers who reported that they opened the gates between pens after they left port to give the sheep more room. One Captain did this only during hot weather. Grandin reported that a DOT official doubted that it would present a hazard to ships stability.³⁴ It does present a

hazard for movement around the deck for crew and may be injurious to the sheep themselves. It also may contribute to the problem of shy feeders and allow a few sheep to establish dominance over a larger number.

8.36 Brennan reports that stocking density regulations may be incorrect especially with regard to lighter weight sheep.³⁵ The current stocking density regulations in the Marine Orders Part 43 were formulated by the LAC in 1952 using the Newmarket Victoria stockyards and basic techniques.³⁶ It appears that new research into stocking densities is required.

8.37 The Committee RECOMMENDS that the Livestock Advisory Committee review stocking densities onboard live sheep carriers and, if necessary, the Department of Transport amend the Marine Orders Part 43 accordingly.

Mortality Rates During Embarkation

8.38 The mortality rates for embarkation are available in the Masters Reports of the DOT but their reliability has not been demonstrated. They report losses of under two per cent, yet there is evidence of discrepancies in the tallies of the order of one per cent. This reinforces consideration of Grandin's suggestion of an automated tally system administered by a neutral authority. Dr Brennan recommended further research to discover the extent and causes of mortalities for this phase.

CHAPTER 9

CONDITIONS ABOARD SHEEP CARRIERS

The Shipboard Environment

9.1 Conditions aboard a livestock carrier are similar to intensive livestock production. The sheep are penned and confined and feed is distributed to each pen. A notable difference, however, is that the sheep are subject to the stresses of weather at sea. The modern carrier generally houses sheep in pens above the main deck, not below deck. The sheep are therefore subject not only to yawing, pitching and rolling, but also to wind and seaspray. In studies carried out in 1975 and 1978, M.P. Bond and J. Hartung implicated rough seas and bad weather as a cause of sheep mortality.¹ However, this work was done on older ships and its results, if correct, would not necessarily be applicable to modern carriers.

9.2 The ALEA stated that there might be data available in masters' reports showing a correlation between mortalities and rough weather but this had not been statistically analysed. It acknowledged that rough seas would probably cause inappetance which would lead to empty gut syndrome and finally salmonellosis, but they had not examined their statistics on this.² Napthine and Miller observed that 'sea sickness does not appear to be a problem for sheep'. Brennan concluded that further research is required to determine whether there is a link between rough weather and mortalities.³

9.3 Besides sea sickness, bad weather can cause cold stress, but no evidence is available on the extent of this problem. Carriers from the eastern States of Australia cross the

Great Australian Bight to reach the Middle East. Wind and temperature combine at times to inflict a possible chill factor on the sheep which would approximate that of the Portland feedlot. Sheep may be moved out of the pens on the windward side of the ship during bad weather but this leads to overcrowding.

9.4 Bad weather may mean salt spray washing into and over the ship and may cause a deterioration in the quality of the water supply. Brennan noted that water quality changes markedly after the ship encounters rough seas.⁴ Other information received by the Committee indicated that many sheep died of saltwater poisoning on ships in rough weather if the crews did not attend to their needs. The spray and the weather can be so severe on some ships that it is difficult for the crew to change the water.

9.5 The ALEA did not believe that water quality deteriorated. Dr Franklin commented:

'If we consider that by far a huge percentage of the Australian sheep population has a relatively high salt content in the normal water intakes in the paddock, the amount of sea water that may come in the spray, unless it is under extremely exceptional circumstances, I think would be insignificant.'⁵

9.6 The AVA commented that there have been occasions when sheep carriers have had to drift in the straits in the Middle East for several days in very hot weather. When the carrier is not making any headway there is inadequate ventilation and mortalities increase.⁶ The ALEA confirmed that:

'the time when we have the biggest problem is when there is high humidity and high temperature. This we recognise. In most circumstances we will attempt to alleviate the conditions where possible, by one mechanism or another. It is a problem area.'⁷

'Sheep can probably handle the temperature change; it is the humidity that they cannot handle. Most of the areas in the Middle East are not humid. There are certain areas that are though.'⁸

9.7 The ALEA added that the mortality rate can double or treble if the temperature is over 38 degrees and if the humidity is between 85 and 90 per cent.⁹

9.8 The weather conditions encountered on the voyage to the Middle East appear to vary throughout the year. The heat and humidity reaches its peak in August and this coincides with the worst weather conditions in the Great Australian Bight.

9.9 The weather can impinge on the unloading of sheep at Middle Eastern ports. In all ports, livestock carriers are given priority in berthing. However, delays occur because of gales, sandstorms or similar problems.¹⁰ Political circumstances may also lead to delays.

9.10 Dr Temple Grandin suggested the development of an environmental stress index which would determine various levels of temperature, humidity and air speed necessary to maintain a suitable environment for the sheep. Additional factors to be considered would be sheep condition, wool length, pellet formulation and stocking density.

9.11 Dr Meischke of AAHQS employed a woolbreak test using the Gordon technique to measure the stress on sheep during the voyage to the Middle East. In evidence to the Committee, Dr Meischke stated that there was no direct measure of stress or indeed pain or cruelty¹¹ and for an indirect measure there is difficulty in the comparison of the relative merits of biochemical or physical parameters.

Veterinarians Accompanying Shipments

9.12 Veterinarians engaged by the exporting companies have been making fairly regular voyages to the Middle East on live sheep carriers. Information obtained by these veterinarians have been mainly kept within their companies.

9.13 Until recently, AAHQs veterinarians or State Government veterinarians under the aegis of the AAHQs had made occasional voyages on live sheep carriers to the Middle East. These voyages were usually made on ships which had suffered unacceptable levels of mortalities or other problems.

9.14 The lack of a programme of government veterinarians travelling onboard live sheep carriers had been criticised by the AVA, the RSPCA and other organisations.

9.15 The ALEA told the Committee that ships had a complement of trained stockmen onboard, mostly Asian stockmen with some Australian head stockmen, who were more experienced than most veterinarians travelling on the ships. The ALEA doubted whether veterinarians would accomplish more for the welfare and health of the animals than the stockmen.

9.16 In October 1984, the Minister for Primary Industry approved a pilot programme for government veterinarians to make 20 or 30 voyages a year of the total of about 100 voyages. Although the veterinarians will be able to advise on animal health problems that might arise, their primary responsibilities will be research oriented. Their work will be tied in with research projects being conducted in Western Australia, and soon to be replicated in Victoria, that are investigating the reasons for losses incurred in the trade.

9.17 The government veterinarians will also provide a reliable check of mortalities occurring onboard ships and will be able to observe and report on other animal health and welfare matters. This will provide government authorities with much needed information on shipboard conditions and animal welfare.

9.18 Mr W. Gee, Acting Director of the AAHQs, told the Committee that the industry had begun to be more co-operative with government authorities on this and other matters. Without that co-operation it would have been more difficult to implement a programme of veterinarians accompanying shipments of sheep to the Middle East. Once a ship leaves Australian waters, it no longer comes under Australian jurisdiction.

9.19 Mr Gee emphasised the need to send veterinarians who had experience in flock management and health. He added that there were enough veterinarians available within the AAHQs and State Departments of Agriculture to implement the pilot programme.

9.20 The pilot programme will be assessed to determine whether government authorities and the industry will derive enough benefits from the programme to warrant its continuation on a long-term basis.

9.21 The Committee strongly supports the recent development of government veterinary officers travelling on about 20 per cent of voyages of live sheep carriers to the Middle East. The Committee RECOMMENDS that the implementation of this scheme be given high priority by the AAHQs.

9.22 The Committee believes that the shipping companies should employ Australians as head stockmen on live sheep carriers because of their experience in handling Australian sheep. These stockmen would also be better equipped to recognise

and treat health and welfare problems which might occur during the voyage and provide information on such problems to company officials and government authorities undertaking research into these problems. The Committee RECOMMENDS that the Federal Government encourage live sheep export shipping companies to employ Australian stockmen on live sheep carriers.

Animal and Human Health Considerations

9.23 If there is an outbreak of a major disease aboard a carrier, it has been a practice for the crew to mass medicate the sheep. There are several antibiotics and other drugs available onboard ship which may be used for therapeutic or preventive purposes.¹² Electrolytes can be used as 'salt' replacers, that is the electrolyte salts, cations and anions, in the body fluids of the sheep. Two particular uses have developed. First, where the sheep are subject to hot, humid conditions and develop respiratory acidosis because of excessive breathing, electrolytes are added to the water to restore normal ion balance. The second is where diarrhoea is evident and electrolytes will help replace ions lost through the scour.¹³

9.24 Antibiotics such as terramycin are also administered via the water. The ABAH standards specify a dose of 5 g per sheep per day of a broad spectrum soluble antibiotic such as terramycin.¹⁴ This dosage could represent an actual dose of 0.25 g of the active ingredient. This 'actual' drug dosage is not made clear in the AAHQ standards.¹⁵ The frequency of administration depends on whether it is used for preventive or therapeutic purposes.

9.25 There has been criticism of this practice. Antibiotics are administered less frequently now for financial reasons but the Committee has received information that the antibiotics are of poor quality and are administered incorrectly. There are no health controls over the administration of antibiotics aboard livestock carriers on the high seas.¹⁶

9.26 It has also been claimed that the administration of antibiotics does not conform to veterinary practice within Australia since the dosages vary. In automatic water systems the water is replenished in the troughs throughout the day so the concentration of the antibiotic powder is never static. Half an hour after administration the concentration may be 50 per cent less. Antibiotics are added to water in intensive systems in Australia but it is claimed that the export companies would not pay for slow release tablets and antibiotic injectors. Trained personnel are not employed to administer antibiotics.

9.27 Dr Dobson of the South Australian Department of Agriculture reported that:

'The effect of medication in relation to deaths is difficult to evaluate but at the best could only be described as being of marginal benefit. Deaths actually increased to their peak about 2 days after completion of medication.'¹⁷

9.28 There is no information available to determine whether residues of antibiotics administered during transport to the Middle East have any harmful effects on consumers.

9.29 The importation of exotic diseases by the trade in live sheep has been raised as a potential danger for Australia. There is no evidence that this has occurred but vigilance is required by the industry and government authorities to prevent it occurring in the future.

9.30 It has been alleged that quarantine problems may result from unused fodder in ships' holds which is returned for consumption by the next load of sheep. However, returned fodder is subject to strict quarantine controls and buildup of fungal toxins within two trips is very limited.¹⁸

Feed and Water

9.31 Contamination of feed and water could have serious consequences for the sheep aboard a livestock carrier. The problem of salt water washing into the water troughs and contaminating the water supply has been considered but does not appear to be a significant problem.

9.32 A source of contamination of more concern is the fouling with sheep droppings of both the feed and water troughs. Marine Orders Part 43, in a note, rather than as a requirement, specify that the top of a feed or water trough should be approximately 550 mm above the pen floor.¹⁹ They suggest that a pipe or round bar be installed 75 mm off the top edge of the trough in order to minimise fouling. Other practices to overcome the problem have been the straining of a cable in front of the troughs at a suitable height²⁰ and the use of kick boards in front of the troughs.²¹ Dr Peter Arnold commented that troughs should be above anal height to prevent contamination.²² Grandin noted that on one ship the feed troughs appeared to be too high and it was difficult for sheep to eat. Excessive height may reduce feed intake as sheep naturally eat in a head down position and saliva flow may be hampered by high feed troughs.²³ A fender mounted off the trough may prevent contamination and not discourage feeding but it may also occupy valuable deck space. Another suggestion has been the installation of a step up to the trough. Dr K. Dobson conducted a trial aboard the 'Viborg' in which a 7.5 cm high wooden step was placed in front of the trough, but this did not result in reduced deaths in those pens.²⁴

9.33 There is evidence that sheep which drink water with some fecal contamination are able to cope with it because they are ruminants with bacteria present in their digestive system, with the qualification that the water must be visually

acceptable and have no smell. The principal reason for the reduction of fecal contamination is that the chance of spreading disease via the water system is reduced considerably. The AAHQs commented:

'The problems of feed troughs and feed trough contamination remain unresolved. The problems can be overcome by constant attention to cleaning but it cannot be beyond the ingenuity of man to arrive at permanent solutions.'²⁵

9.34 The Committee RECOMMENDS that the DOT, in consultation with the AAHQs, investigate the problem of trough fouling aboard live sheep carriers and revise the Marine Orders accordingly.

9.35 The ready availability of feed and water is important. There is evidence that denial of feed and water leads to maladaptation, scouring and gut infection which can become generalised and lead to high mortalities.²⁶

9.36 The ALEA agreed that feed should be applied on a continuous basis so that all sheep have access to feed.²⁷ However, only 11 carriers have automatic feed systems and another one has a system which is partly automatic.²⁸

9.37 The ALEA admitted that in ships with manual feeding systems it is impossible to keep feed in troughs all the time. On the larger ships feed is available for 24 hours 'or as close to 24 hours as physically possible'.²⁹ The Committee received information questioning the effectiveness of automatic feed systems but the Committee has not been able to substantiate these allegations.

9.38 The Committee has received evidence that in ships with automatic feeding systems, about 25 per cent of the sheep should be able to feed at the trough at one time. With a manual system and if feed is limited to one kilogram per head per day then all

sheep in a pen must have access to the feed at the same time otherwise some sheep will probably eat more than their share. A six inch trough space per sheep means that, on present stocking densities, this is not feasible. The only solution is the installation of automatic feeding machines. The ALEA told the Committee that:

'provided the feed is there for a reasonably long period of time and animals have a chance to rotate, the importance of the linear access of the trough is not as high as it is in a situation where you have limited feed and limited feeding time.'³⁰

9.39 The availability of the feed in ships with manual feeding systems may be restricted by the rolling and pitching of the ship during bad weather because the crew are not able to replenish the troughs. Grandin points out that an advantage of automatic troughs is that they are less likely to slosh and spill water, because only a small amount of water in a deep trough needs to be available to keep the sheep supplied.³¹

9.40 The Committee RECOMMENDS that the DOT, in consultation with the AAHQs, assess the welfare benefits of automatic feeding and watering equipment and, if necessary, amend the Marine Orders to require their installation in live sheep carriers.

9.41 The revised Marine Orders specify that evidence should be provided by the Master 'attesting the capacity and efficiency of the water-generating equipment'.³² The Marine Orders also specify that a reserve of 25 per cent or 3 days' requirements, whichever is the less, should be carried.³³ As far as the Committee can determine, the minimum additional quantity of water is carried. The Committee received information that the reserve requirement is not enough to cover both unforeseen problems at sea or delayed unloading and that instead, 33 per cent extra feed and water should be carried.

9.42 The Victorian Department of Agriculture commented that:

'the Marine Orders state three days on top of their normal expected voyage time. But we have had the situation that where vessels have been unduly delayed, they have been able to call in at other ports on their way. One was a live sheep vessel just recently that was unduly delayed across the Bight and it called in at Fremantle for more fodder.'³⁴

9.43 However, this does not address the problem of delays occurring in transit from Fremantle to the Middle East.

9.44 The Committee RECOMMENDS that the DOT, in consultation with the LAC and the AAHQs, consider the question of optimum volume of reserve feed and water and, if necessary, revise the Marine Orders accordingly.

9.45 The distribution of the feed from the bulk lines can also present problems. The distribution might be done by bag or bucket in the case of manual systems or by conveyor, auger or pneumatic tube in the case of automatic systems. The problem with the former is that of disruption by bad weather or inability or reluctance to distribute the feed on the part of the crew. The problem with the latter is that the pellet is subject to various degrees of crumbling by the automatic equipment. Dr K. Dobson commented:

'While the system was moderately efficient, the raising of the pellets by auger and lowering again resulted in considerable crumbling of the pellets. This gave rise to excessive dust which is uncomfortable for both man and sheep and which makes feed unattractive and less palatable for sheep. ... This could be decreased by using a smaller pellet. Decreasing the distance of travel in augers and pipes before it gets to the sheep should also be considered.'³⁵

9.46 It appears that conveyor equipment may cause less crumbling than auger or pneumatic systems.

9.47 The Committee RECOMMENDS that the DOT assess the merits of different feed handling systems in their ability to reduce crumbling of the pellet.

9.48 The Committee further RECOMMENDS that, on the basis of the DOT assessment, satisfactory feed handling systems be required to be installed in all future carriers entering the trade, and that the Marine Orders Part 43 be revised accordingly.

Ventilation

9.49 The ALEA told the Committee that if the temperature exceeds 38 degrees celsius and if the humidity is between 85 and 90 per cent, conditions which do occur at sea in the Middle East, the sheep mortality rate can double or treble.³⁶ Fels reported that by improving the ventilation in a sheep carrier mortalities were kept to reasonable levels. Extensive environmental measurements by Suiter and Dyer indicated that increasing the air movement reduced mortalities significantly.³⁷ Dr Dennis Napthine of the Victorian Department of Agriculture confirmed this view. He believed that air movement was a critical factor influencing the survival of sheep. He recommended that a thorough study of the effects of air movement on the survival of sheep during transportation be undertaken.³⁸

9.50 The consequences for the sheep of a failure of ventilation machinery are considerable. The DOT reported two occasions from January 1979 to date:

'the Mukairish Althaleth, flag Saudi Arabia, on a voyage from Adelaide to Jeddah, departure 1 February 1984 ... loaded 28 000 head of sheep. At one period the ventilation broke down and the losses rose from less than one sheep daily to 70 during that period. We

had one bad failure of the mechanical ventilation on a ship called the "Persia" - its flag was Lebanon - on a voyage from Fremantle to Suez. In September 1981 it loaded 49 500 sheep and due to the ventilation breakdown, the deaths were 8764.³⁹

9.51 The ALEA commented that since the 'Persia' disaster, the new Marine Orders have required every vessel 'to have a stand by generator installed, totally separate operationally and with a separate fuel line to the main generator, so in the event of a generator breakdown you have a back up generator'.⁴⁰ However, that part of Marine Orders only took effect on 1 July 1985 for ships with a pen area for sheep of more than 10 000 square metres but will not take effect until 1 July 1987 for ships with a smaller pen area.

9.52 The AAHQs has emphasised that greater consideration should be given to ventilation design. For example, Dr Meischke reported that on one ship the exhaust and intake of ventilation were close together.⁴¹ Dr Brennan reported that 'Investigation into the effects of ventilation on ships is urgent and should utilize the services of an air conditioning engineer accompanied by a veterinary surgeon'.⁴² Grandin suggested that an engineer with practical experience ventilating aircraft carriers, mines or large buildings would contribute to better design.⁴³

9.53 Designers are required to work within the specifications set by the national regulating authority which, in Australia, is the DOT. There are differing national standards. The British requirement specifies 20 air changes per hour whereas Marine Orders Part 43 specifies 20-30 changes per hour or 75 per cent of this capacity if decks are not enclosed as in the above deck supercarriers. Captain John Collins, Marine Superintendent of the British Ministry of Agriculture, Fisheries and Food, prefers 30 changes per hour. Dr Kevin Dodd, veterinary

consultant to a major cattle shipper from Eire who also exports sheep and cattle from Western Australia, believes ventilation is critical and recommends 40 changes per hour. These air change specifications apply to in-hull converted cargo vessels, not above-deck converted oil tankers, according to Dr Neil Tweddle.⁴⁴

9.54 Professor Muller of the University of Hohenheim, West Germany, has observed that high ventilation rates are not desirable when outside temperatures are low but ventilation must still be able to remove the carbon dioxide produced by the animals. In the Middle East, ventilation should be increased to maintain relative humidity not higher than 80 per cent. This is one of the few attempts, if not the only one, to provide a scientific rather than an ad hoc basis for ventilation specification.⁴⁵

9.55 Air changes per hour is not an entirely adequate specification for ventilation. Brennan notes that high velocity air blasts may not penetrate far when sheep are in pens and, because of turbulence, they may create dead areas adjacent to the ventilation outlets.⁴⁶ Willson noted that the total amount of air ducted into sheep areas appeared to be adequate but the 'big problem' was the distribution of air throughout the pens. Air movement was evident in the alleyways but not at all evident in the sheep pens. He also noted a 'vast difference' in the air flow rates between the bottom and top levels of the sheep pens.⁴⁷ Grandin reported that most ships transporting sheep have a ventilation system which can exceed the minimum air changes required by the Marine Orders. The problem is that 'the air is not being evenly distributed throughout the space occupied by the sheep'.⁴⁸ The air movement was measured by Dr Napthine at various points throughout the sheep areas. He observed that the wind speed was 2m/sec within 0.5 metres of the ventilation outlet but he detected no movement of air more than

one metre from the ventilation outlet. He concluded that the sheep depended almost entirely on the air movement caused by the ship's forward movement.⁴⁹ Lt Colonel Harries of the South Australian RSPCA, noted that the movement of sheep in the pen during feeding dispersed the stale air.⁵⁰

9.56 Unpublished work by Dr Peter Arnold has indicated that four knots (2m/sec) is the minimum amount of air movement in a pen of sheep. 'Below that it becomes very dangerous.'

9.57 The ALEA was unaware of any particular minimum standard of air flow in the sheep pens but it did acknowledge that movement of air in the pens was important.⁵¹

9.58 Dr Brennan reported that mortalities could be accurately predicted to occur in pens on the leeward side of the sheep house following conditions of high temperatures and humidity. It was stated that high humidity impaired the cooling of the sheep and rapid gasping respiration had been observed above 32°C and 90 per cent relative humidity, or above 35°C and 33-39 mm of mercury.⁵² The ALEA responded that masters will take necessary action and will even circle during a voyage if they find they are getting an air vacuum in very still conditions.⁵³

9.59 The Committee received evidence from a veterinarian who had accompanied a shipment of sheep that encountered these conditions. The captain had to meet a deadline in the port of destination and refused to zig-zag the ship. The veterinarian gave his views in writing but the captain did not respond. This veterinarian added that most captains were co-operative.

9.60 The AAHQs has stated that modern livestock carriers with large, high superstructures are difficult to manoeuvre at sea and that the ventilation system should not require change of direction and the use of prevailing winds.⁵⁴

9.61 The DOT informed the Committee that the Marine Surveyor tested the mechanical ventilation each time a sheep carrier visited Australian ports.⁵⁵

9.62 The revised Marine Orders that came into force in July 1983 included minimum air changes but not air velocity. Although no contravention of the regulation occurs, the air circulation may be extremely poor in the sheep pens after loading and the bulk of the air flow could be wasted.

9.63 Dr Grandin concluded that the only valid method for the evaluation of the air distribution characteristics of a ventilation system was when the pens were filled with sheep. She had evidence that the sheep acted as a solid wall and changed the air flow patterns. She cited wind tunnel research with models by Muirhead which indicated that air flow through a cattle truck became weak when the animals were put into it.⁵⁶

9.64 The airflow at the face level of the animal is extremely important. The velocity of this airflow is one of the most important means of inhibiting the effect of carbon dioxide and ammonia in the pens. The ALEA commented that ammonia levels are over-emphasised. They are often an indicator of poor air movement which is a worse problem than ammonia fumes.⁵⁷ They also commented that wet litter on the deck due to spillage, hosing, rain and salt spray can cause increased ammonia and humidity levels but that after a number of days it forms a 'dung pad' of dry fecal material which will absorb a lot of moisture, particularly urine, and keep the ammonia level down.⁵⁸ Dr Napthine confirmed this. Aboard the 'Al Qurain' he found that sheep droppings dried out quickly and became powdery. The urine was absorbed by the powder.⁵⁹ He recorded ammonia levels which ranged from 0-50 ppm. The levels were higher at the beginning of the voyage but he recorded 35 ppm on day 13. He commented that

the tolerance of sheep to ammonia levels was unknown and needed to be the subject of further research.⁶⁰ Dr Willson also recorded ammonia levels up to 50 ppm and 'an obvious build up of foetid air was also noted in some areas'.⁶¹ More importantly he stated that this build up of foul air was not necessarily confined to areas where air movement was minimal. Obnoxious levels were also recorded where there was good air movement. Both Dr Willson and the marine surveyor accompanying him on the M.V. 'Persia' noted that, by day six, the worst ventilated areas in the ship became more apparent by a failure of the pen floors to dry out adequately, becoming progressively wetter until the worst areas contained liquid faeces and urine which resulted in foul odours and an increase in relative humidity.

9.65 Lt Colonel Harries confirmed that the limit of tolerance of a sheep to ammonia levels in the atmosphere, expressed in parts per million was unknown.⁶² He recorded ammonia levels in the range of 5-40 ppm. Dr Grandin interviewed a number of exporters some of whom were concerned about high ammonia levels and some of whom did not consider high ammonia levels detrimental.⁶³ She concluded that 'exposure of animals to ammonia may inhibit their ability to resist disease' and the 'ammonia levels over 50 ppm during the major portion of the voyage would probably be detrimental to the sheep'.⁶⁴ Grandin noted that the new ships were equipped with indicators on the bridge to warn the captain of ventilation problems.⁶⁵ Dr Tweddle reported that automatic environmental monitoring is feasible and that analysis of recorded data for the shipboard environment and correlation with animal performance should then identify optimum conditions.⁶⁶

9.66 The Committee RECOMMENDS that the DOT, in consultation with the AAHQs, undertake, as a matter of priority, an investigation of the effectiveness of ventilation standards required for sheep carriers, and revise Marine Orders Part 43 accordingly.

Livestock Carrier Design and Specification

9.67 NSW Animal Liberation in its submission expressed concern about the soundness of ships in the trade, referring specifically to the loss of the Farid Fares, the ventilation problems suffered by the Persia and the breakdown of the Al Shuwaikh on its first voyage.

9.68 The DOT informed the Committee that:

'The age of the ship is an important factor when considering conversion. It is a recognised fact that corrosion of the structure of livestock carriers is a major problem, so the service life of a ship depends very largely on the degree of maintenance carried out. Some ships are now reaching the stage when their continued viability as livestock carriers is open to question.'⁶⁷

9.69 The DOT report on the sinking of the 'Farid Fares' concluded that:

'The majority of converted livestock ships in this trade are of average age of 25/30 years or more and represent on a comparative basis (the) lowest standards of maintenance of any class of vessels currently trading to Australian ports. Evidence of this will be readily available from Central Office files relating to adverse reports resulting from increased surveillance of this type of vessel by Departmental surveyors ... I raise these matters here to emphasise the underlying nature of maintenance problems on these vessels, thereby highlighting the potential for accidents resulting in a casualty as occurred in this case.'⁶⁸

9.70 Dr Naphine told the 1984 annual conference of the AVA that older ships had a much higher mortality rate owing to poor ventilation and increased breakdowns in feeding and watering systems. 'The loss of sheep on the older vessels is unacceptable and the ships should be banned.'⁶⁹

9.71 Dr Grandin reported that many sheep carriers were converted oil tankers which were big and slow. She said that several companies were considering the conversion of container ships or car carriers as they had abundant space and were faster than tankers. The configuration of a container ship would require enclosing of the pens and the installation of an effective ventilation system.⁷⁰

9.72 Dr Grandin reported that a sheep carrier had to be large enough to achieve economies of scale but small enough to ensure adequate preparation of the sheep. In addition, there were few ports at both ends of the voyage with facilities to handle large shipments of sheep.

9.73 The specification and design of the ships are scrutinised by the DOT for both structural and engineering requirements. When the livestock plans are first submitted for approval, they are examined for design and stress suitability in the Ship Safety Branch of the Department. When the ship docks at an Australian port, two marine surveyors, one a master mariner and the other an engineer, inspect the ship. The engineer examines the machinery, ventilation equipment and engine room, and the master mariner will examine such things as fire-fighting equipment, feed and water and stability for compliance with Marine Orders Part 43 and other regulations.

9.74 The ABAH report 'Sea Transport of Sheep' (1981) gave details of a number of areas where there were deficiencies in specifications and design of carriers, but the revised Marine

Orders issued in July 1983 dealt with many of these problems, such as drainage, watertight and non-slip decks, lighting and a secondary source of power for ventilation.

9.75 Section 18 of the revised Marine Orders applies to ships' ramps. It specifies the gradient of the ramp, fitting of side panels and deck battens. Grandin observed that most ships had wide loading ramps that could accommodate six to 10 sheep abreast and were a big improvement over the narrow ramps of the older ships.⁷¹

9.76 There is evidence that vessels with a stiff roll, that is, they resist rolling until the pressure is too great and then roll suddenly, may throw livestock off their feet in rough weather and increase stress and mortalities.⁷² No regulations apply to this design feature and the DOT informed the Committee that 'it is not a thing we would normally investigate'. The master of the ship would probably try to ballast or de-ballast the ship to make the voyage more comfortable.

9.77 The Committee RECOMMENDS that all live sheep carriers be required to meet the revised standards recommended in this report or be withdrawn from the trade.

Mortalities Aboard Sheep Carriers

9.78 On completion of a voyage, the ship's master is required to forward to the DOT a report on animal mortalities during the voyage. The current revised form of report requires details of daily mortalities from the beginning of loading until the final discharge of sheep at the port of destination. A summary of mortalities, excluding the periods of loading and unloading, for five years is presented in Table 9.1. The average mortality for the voyage is two per cent and additional losses are suffered during loading and discharge of the sheep.

Table 9.1: Summary of Sheep Losses at Sea 1979 TO 1984

	SHEEP EXPORTED	DEATHS	%
1979	5,311,432	105,959	1.99
1980	6,125,637	150,722	2.46
1981	4,822,704	112,794	2.34
1982	5,887,315	131,691	2.24
1983	6,254,703	131,047	2.10
1984	6,963,314	135,841	1.95

Source: Evidence pp. S1535-46, S2941.

9.79 In its submission to the Committee, the Department stated:

'It will be apparent that the practical value of the Master's report on mortality is limited as it is not an independent record. However, in the absence of any independent observer at the port of discharge and the difficulties of ensuring a correct tally both in Australia and at the overseas markets, no other avenue of assessing performance is considered practicable.'⁷³

9.80 The reservations of the DOT have been expressed more forcefully by critics of the trade and by some people in the industry itself. The Committee has received many allegations of false mortality statistics being included in the masters' reports. The only evidence of possible discrepancies in masters' reports has been information obtained by Dr Twedde of the Victorian Department of Agriculture from one insurance company of claims made to it for sheep losses on several voyages. A comparison of the insurance claims made and the reported mortalities by the master is shown in Table 9.2. It should be noted, however, that the insurance claims were probably for a

longer period than just the duration of the voyage. To prove a discrepancy in the master's report, it would be necessary to match the identical period in the insurance claim. This information is not available.

Table 9.2: Sheep Shipments to the Persian Gulf
Comparison of Insurance Claims and Masters' Reports

MASTERS REPORTS Deaths %	INSURANCE REPORTS Deaths %
0.09	0.3
0.8	1.8
2.7	7.3
3.2	4.3
1.6	2.2
3.1	5.9
1.7	2.4
1.2	2.4
1.4	10.7
3.8	7.5
1.2	3.0
1.5	2.7
1.7	3.5
3.1	6.6

Source: Victorian Department of Agriculture.

9.81 Lloyd's of London underwrite a lot of the insurance on livestock shipments in many parts of the world and in most cases, Lloyd's underwrite insurance contracts for brokers such as Middle Eastern insurance companies. A few consignments are

underwritten by Australian insurers. The marine insurers market in Australia is fragmented and there is no unified approach to insurance for the live sheep exporters.

9.82 Mr R. Ludeking, Marine Underwriter for Phoenix Prudential, commented that mortality rates have improved considerably over recent years but underwriters have become wary of giving too much credence to published statistics on average mortality because individual shipments depend on specific circumstances which should not be generalised. Most sheep insurance cover commences at time of arrival on the wharf at the point of embarkation and ends when the sheep are put in sheds or on trucks at the port of disembarkation. The insured value was approximately US\$80 per sheep in August 1983.⁷⁴

9.83 Mr Ludeking stated that:

'present insurance underwriting loss expectancy is between a range of 2.5 per cent to 7 per cent for individual shipments ... Underwriters identify the loss figures from pre-shipment, on board ship, and at point of unloading in their estimations, whereas it is understood that the official figures only take into account the number of deaths during the overseas voyage.'⁷⁵

9.84 Underwriters are also aware of incorrect tallies. 'Past experience relating to short tallying is also a decisive factor when assessing a risk.'⁷⁶ If the tallies are incorrect at either end, mortalities may be either completely obscured or conversely, grossly exaggerated. The Committee is aware of a tally dispute concerning 1.11 per cent of sheep loaded, a tally dispute of this size would make a severe dent in mortality statistics of two per cent. Tallies have also been discussed in Chapter 8.

9.85 Apart from the controversy over the average mortalities sustained by the trade, a few significant incidents have occurred since 1980.

9.86 The DOT reported that the ventilation system aboard the 'Mukairish Althaleth' broke down in February 1984 and for the 28 000 sheep aboard the losses rose from one head per day to 70 per day.⁷⁷ This ship has now been withdrawn from the trade.⁷⁸ The DOT also reported that the deaths on board the 'Persia' in September 1981 were due to ventilation breakdown and totalled 8764 of the 49 500 onboard.

9.87 Since 1970, one livestock carrier, the 'Farid Fares', has sunk, resulting in the loss of 40 605 sheep.

9.88 The South Australian Department of Agriculture reported that with the breakdown of the 'Khaleej Express' and its return to Outer Harbour, Adelaide, on 27 July 1981, the transfer of 20 000 sheep to the 'Al Shuwaikh' involved the death of 635 sheep or 3.175 per cent.⁷⁹

9.89 Earlier, in June 1980, the 'Khaleej Express' was on passage from Adelaide to Jeddah when its cargo of sheep suffered from an outbreak of a 'virulent disease'. A total of 2713 sheep, or 13.4 per cent of the 20 133 loaded, died but the majority of this loss, 2275, occurred within the first ten days of the voyage.⁸⁰ The 'Al Shuwaikh' on her maiden voyage after conversion to a sheep carrier, broke down off Fremantle because of damage to her main engine.⁸¹ Fortunately, no sheep were on board.

9.90 These incidents indicate the possible mortalities caused by machinery failures and other contingencies.

9.91 The level of mortality onboard a sheep carrier is an indicator of animal health and welfare in that, for a shipment in which, say, two per cent die, the deaths will have been preceded by sickness or other suffering, and other sheep which have not died, will presumably have also been sick or have

suffered in some way. The inadequacy of mortality as an indicator is that the causes of death have generally been unknown and consequently, not all of them can be attributed to shipboard conditions. Overall, however, high mortalities indicate health and welfare problems and low mortalities indicate tolerable conditions, but not necessarily free of stress or suffering.

9.92 Moreover, given data from a large number of shipments over a reasonable period of time, it is assumed that random variations or inaccuracies would cancel one another and therefore the mortality statistics may be indicative of changes for better or for worse in the industry. The rapid improvements in the 1970s have been replaced by a reasonably constant level of mortalities in the 1980s.

9.93 The understanding of the causes of mortality is as equally important as being able to measure the rate of mortalities. There is a litany of postulated causes of mortality. The Brennan Report lists confirmed causes as:

- . hypocalcaemia
- . acidosis
- . heat stress
- . polioencephalomalacia
- . salmonellosis
- . clostridial infections
- . trauma
- . copper poisoning
- . haemorrhagic enteritis
- . pulmonary failure.

9.94 Brennan listed a number of factors which have been subjectively related to sheep mortality on livestock vessels and observed that three trends have been observed in mortality patterns:

- . steadily rising mortality throughout the voyage (March to August)
- . initially high mortality which steadily declines throughout the voyage
- . a combination of the former two.⁸²

9.95 Although some causes of mortality aboard sheep carriers are known, many others are not. In addition, there has been no large scale assessment of the suffering involved with live exports as reflected in the mortality rates. Many company veterinarians have been aboard sheep carriers and monitored feedlots but there has been no sustained, industry-wide attempt to solve these problems. The AAHQs stated that up to one million Australian sheep have died between purchase for export and unloading overseas during the past five years. Many more have suffered illness or injury, and have been rejected for export prior to loading or have survived to slaughter.

9.96 In the last two years, government authorities and the industry have begun to do research into the cause of mortalities. However, it is only with the recently approved programme of government veterinarians accompanying shipments of sheep to the Middle East that information obtained from post mortems will be available for analysis and inclusion in the broader research programmes currently underway.

CHAPTER 10

CONDITIONS IN THE MIDDLE EAST

Unloading at Middle Eastern Ports

10.1 The ALEA stated that there are no delays in the berthing of sheep carriers in the Middle East unless bad weather intervenes. In all ports, sheep carriers are given priority. The ALEA stated that, in virtually all the Middle Eastern countries, there are unloading systems as good as, or even better than, those in Australia. The Bahrain Government, in particular, has taken action to ensure swift unloading.¹ The Harries Report to the South Australian RSPCA observed that at Kuwait under normal circumstances, there was no undue delay in the berthing and discharge of livestock, which were regarded as a priority cargo.²

10.2 However, other information received by the Committee indicated that delays in discharging of sheep in hot, humid conditions in the Middle East were very common. There is also evidence that because of delays and disputes there can be a sudden influx of sheep at ports in the Middle East. In April and May 1978 eight ships discharged a total of 240 000 sheep at the Iranian port of Bandar Shapour in the Persian Gulf. The 'Land' reported that 'this placed unacceptable strain on ship discharge facilities and the entire distribution system' and 'delays in unloading ships had caused heat stress in 40 degrees celsius temperatures and the loss of several thousand sheep'.³

10.3 Willson reported, in his voyage to the Middle East in January 1982, that the 'Persia' was held off Aqabah for nearly 24 hours but once berthed the unloading was rapid and

efficient.⁴ Paxton reported that the ports of Shuwaikh, Dammam, Jeddah and Fujairah also efficiently handled the disembarkation of livestock. However, he advised that the Australian Government should approach Middle Eastern governments to ensure that ships carrying livestock were given priority in berthing and that the unloading of livestock was done as smoothly and rapidly as possible in order to minimise suffering and losses. Livestock being held on a stationary ship in the Middle East were often given no feed and water.⁵

10.4 The Victorian RSPCA stated that 'what concerns us in the Middle East is the fact that these animals which arrive in the Middle East are then subjected to animal husbandry standards which are totally at variance with the way in which the sheep had been handled since birth in Australia'.⁶ However, various witnesses have reported satisfactory unloading of sheep from ship to shore. Dr Napthine of the Victorian Department of Agriculture described how, within one hour of docking at Kuwait, the sheep were efficiently run off the ship and then run 150 metres into a large, well-ventilated, holding shed. No unloading took place during the heat of the day, that is, between 1200 and 1600 hours.⁷

10.5 Miss Chris Larter, an animal welfarist associated with the Brooke Animal Hospital, Cairo, accompanied the 'Viborg' to Benghazi, Libya. She observed that the unloading was accomplished efficiently and the sea journey had not affected the sheep.⁸

10.6 However, unloading of the 'Persia' at El Adabia, Suez in September 1981 was described as follows:

'There were no facilities to handle the sheep at the port. The boat was delayed for three days before unloading could take place, during which time the sheep were without

water ... The men did not know even how to load the sheep, and our sources gave some advice. Sheep were escaping, being chased over the wharf by dogs and children, caught by the legs, and thrown on their backs into the trucks.⁹

10.7 Dr Temple Grandin reported that interviews with ships' officers and other people in the shipping industry indicated that some ports in the Middle East had good unloading facilities but others needed improvement.¹⁰ Her main criticism was that, at some ports, the sheep were unloaded directly on to trucks from the main ramp of the ship, which delayed unloading considerably. She suggested the use of a folding, raised unloading platform similar to the one used by Siba and Fares in Western Australia. Also, where sheep are unloaded directly onto the wharf, the gradient of the ramp on some ships may be excessively steep at high tide. Grandin believed that the angle of the ramps should not exceed 25 degrees and to prevent this steep angle the main ship's ramp could be rested on a platform with ramp extension.

10.8 Brennan reported that some ports in the Middle East are claimed to be worse than others, but he continued that mortalities during discharge have been recorded as quite high. Meischke reported that mortalities after unloading sometimes exceeded seven per cent.¹¹ This has been attributed to food and water rationing or deprivation, delays in berthing, delays in unloading, disorganisation on the wharf and inadequate road transport. He also noted that blind sheep slow the rate of discharge from ships.¹²

10.9 Dobson observed that the unloading of the 'Viborg' in Kuwait in 1983 took 21 1/2 hours. The period of unloading was unnecessarily long and the delay was due to the stock being immediately loaded on to trucks. Dobson and other witnesses have expressed concern about slow unloading in mid summer in the

Middle East because the high temperatures (up to 50°C), lack of water and overcrowding while waiting for transport to feedlot in the long loading races lead to much suffering and death.¹³ Willson noted on the 'Persia' at Jeddah that these delays contributed to the loss during discharge of 13 sheep through smothering in the alleyways and loading ramps.¹⁴

10.10 It appears that conditions and procedures for unloading sheep in the Middle East vary considerably in their efficiency and provisions for the welfare of the sheep.

10.11 Dr Peter Arnold told the Committee that 'there are some very, very good facilities available in the Middle East, probably better than what is here'.¹⁵ Dr Napthine referred to the facilities in Kuwait as 'excellent'. The sheep were run into a large concrete holding shed on the wharf which was well ventilated and had provision for feed and water.¹⁶ Lt Colonel Harries described the Kuwait facilities as 'well above average' and that layout, ventilation, feed and water provision were of a 'high standard'. It was used as a 'reservoir' between the ship and the road transport carrying the sheep to the company feedlot 20 km inland.¹⁷ Lt Colonel Harries was not able to see the wharf facilities at Bahrain. He understood that the sheep were held in pens on the wharf until they could be moved by road transport.

10.12 The unloading facilities are important in the distribution of sheep. The AMLC believed that Iran discontinued the import of live sheep because their handling facilities were under threat from Iraqi attack. 'They are so busy handling other commodities in through that port, that I do not think they want it congested with live sheep. I think they are having problems between the port and getting it into Tehran.' Mr Beeby added 'It is a long, long way over very hot, bad roads. We protested strongly about the problems associated with coming out of Bandar Abbas.'¹⁸

Road Transport

10.13 RSPCA Victoria stated that there are major problems with the transportation of the sheep throughout the country of destination.¹⁹ Although Dr Napthine found no evidence of overcrowding in Kuwait, Drs Arnold, Willson and Brennan have all referred to instances of overcrowding and inadequacies of transport.²⁰ Lt Colonel Harries noted that the road transports at Kuwait which were used for travel to the feedlot, were semi-trailers of Australian manufacture.²¹ Mr Ralph James of the Sheepmeat Council and Mr Vivian Burton of Metro Meat Ltd expressed similar views.²² However, Willson noted that at Jeddah, at the unloading of the 'Persia', the trucks were not well equipped to carry sheep and loading was often excessive. In addition, an intermittent shortage of trucks contributed to the unloading problems mentioned above.²³ At the unloading of the 'Persia' at El Adabia it was stated that the trucks used to transport the animals were 'entirely inadequate, some having sloping floors which caused the sheep to fall over'.²⁴ Paxton, who was stationed in the Middle East from March to September 1983, observed careless acts which prejudiced the welfare of the sheep, such as forcing sheep to jump from the back of trucks and tying of sheep's feet to transport them in trucks. He concluded that the transportation of sheep to the feedlot needed improvement in some countries, mainly those which had not developed expertise in sheep handling on a large scale, and also among some of the smaller importers.²⁵

Feedlots in the Middle East

10.14 On arrival in the Middle East, sheep may be held in feedlots for up to six weeks.²⁶ Paxton reported that large feedlots exist or are under construction at Kuwait, Fujairah, Riyadh, Damman and Jeddah.²⁷ Importers were investing

'considerable funds' in feedlots to prevent substantial economic losses resulting from the weight losses occurring in the sheep and cattle that land in the Middle East.²⁸

Feedlot Facilities

10.15 The Sheepmeat Council of Australia stated that feedlot facilities in the Middle East were of 'top quality'.²⁹ RSPCA (Victoria) did not accept this assessment³⁰ and the AMLC described conditions as 'improving'.³¹ Other information received by the Committee indicated that the Saudi feedlots were the best in the Middle East, most of the others were satisfactory and a few were bad.

10.16 These varying assessments require an examination of these facilities in greater detail. Napthine and Harries reported that fodder and water facilities in the Kuwait feedlot were practical and adequate consisting of metal feed troughs at the perimeter of the yard and two cement water troughs with an adequate supply of clean water. By contrast, at the feedlot in Bahrain which they visited, there was insufficient drinking space, the water troughs were dirty and the feed troughs were inadequate.³² Meischke reported that the cleanliness of the Bahrain facilities had deteriorated from the previous year.³³

10.17 The AVA commented that shade cloth had been installed in the major feedlots and this had reduced mortalities.³⁴ Harries and Napthine noted a significant drop in temperature on entry into the shaded yards in Kuwait, where 80 per cent of the area was effectively shaded. By contrast, the Bahrain feedlot had 20 per cent of its area covered with a corrugated iron roof.³⁵ Meischke noted that the provision of shade in Bahrain was worse than the previous year.³⁶ In Kuwait, plantations had been located on the perimeter of the feedlot to reduce the effect of the hot winds. Paxton noted that feedlots were not equipped with any means for drafting or restraining animals.³⁷

10.18 Feedlots in Bahrain and two large new feedlots in Saudi Arabia had been designed with Australian help, particularly from the AMLC.³⁸ Australian input might be increased through the Australian Development Assistance Bureau consideration of aid for feasibility studies for quarantine/abattoir complexes and in the tendering by the Australian Overseas Project Corporation for the construction of abattoirs and animal handling facilities.³⁹

Feed

10.19 Middle Eastern feedlots employ varying feed regimes. Harries and Napthine reported that in the Kuwait feedlot, the sheep were fed lucerne hay on their arrival at the feedlot, 50/50 lucerne hay and pellets the next day, and exclusively pellets on the third day.⁴⁰ Little hay is produced locally because of the harsh desert climate⁴¹ and it is expensive to import. In Kuwait lucerne hay was imported from China. The Kuwaiti pellets were manufactured at a feedmill owned by KLTT which adjoined the feedlot. The pellet was made with Australian barley (20 per cent), Iraqi dates (20 per cent) which were used as a binding agent, soya bean cake, lucerne and supplements. Napthine was told that the protein content was 15 per cent and the digestibility was good. There was no evidence of a dust problem.⁴² In Bahrain, Napthine and Harries observed that the feed was a powder - bran type feed. The AMLC representative stated that it had a high grain content.⁴³ The Committee received information that in Saudi Arabia the feed was usually whole barley used with a roughage such as wheat bran. No pellets were used. Whole barley is imported from Australia aboard the carriers but it is not known what percentage is supplied from Australia. Barley is also used in the Kuwaiti pellets. Paxton noted that livestock rations at smaller feedlots tended to be unbalanced and based on wheat bran and, to a lesser extent,

barley.⁴⁴ The AMLC reported that feedlots in the Middle East do make considerable use of bran and pollard.⁴⁵ There is evidence that these barley/bran diets are inadequate and may cause acidosis.

Feedlot Management

10.20 Paxton commented that there was wide variation in management skills used in the feedlots, but there was general acceptance that acquisition of management expertise was worthwhile. Australian management is increasingly being used.⁴⁶ The management of the large feedlots has a degree of government participation and integration with Australian enterprises.⁴⁷

10.21 Harries and Napthine observed the veterinary care available at the feedlots. In Kuwait, the sheep were inspected twice a day. Sick animals were isolated and treated and those beyond treatment were destroyed.⁴⁸ At Bahrain they observed 15 moribund sheep that were carefully stepped over by stockmen engaged in feeding. To avoid theft and abuse the stockmen were not permitted to destroy them but, at the request of the AMLC and Australian diplomats, arrangements were made for a government veterinarian to visit the area daily to destroy moribund sheep.⁴⁹ However, Meischke reported that, on his inspection a year later, the removal of the dead and the care of the sick were still neglected.

10.22 Stocking densities also appeared to differ. The feedlot at Kuwait, which has a capacity of 95 000 had an estimated stocking density of 1000 sheep per hectare.⁵⁰ In Bahrain the sheep were all in one large yard with a total area of at least 0.8 hectares.⁵¹

10.23 Feedlot mortality rates are an indication of management skill as well as good welfare practices. Brennan reported that mortality rates varied considerably.⁵² Napthine reported that between 1.0 and 1.5 per cent of the sheep died during the first week in the Kuwaiti feedlot. Arnold reported daily mortalities in Saudi feedlots of 0.08 per cent⁵³ whereas another source reported 0.4 per cent. The AMLC reported mortalities of below one per cent for the duration of the feedlotting period.⁵⁴

The Environment

10.24 The AVA reported a loss of sheep that was 'quite serious' caused by heat stroke induced by the very hot conditions to which sheep are exposed in the Middle East.⁵⁵ This was supported in part by Paxton who observed that during the northern summer, the Arabian climate could severely stress Australian livestock, already stressed by the sea voyage. Temperature, humidity and wind speed were all factors which determined livestock mortalities.⁵⁶

10.25 Australian sheep in the Middle East are at greater risk to disease and parasites exotic to Australia.⁵⁷ Australian sheep lack immunity to sheep pox, foot and mouth, rinderpest and other endemic Middle Eastern diseases which are also prevalent in North Africa, Central Asia and the Indian sub-continent. Australian sheep are exposed to livestock imported from these areas and also to indigenous livestock.⁵⁸

10.26 Rinderpest, also known as cattle plague, is an infectious disease of cattle which can also affect sheep and goats. Mortality is almost 100 per cent.⁵⁹ In 1897, rinderpest devastated the African continent and wiped out nearly all cattle in South Africa.⁶⁰ In April 1985 it was reported that 240 Australian export cattle unloaded in Bahrain died from the disease. The remaining 260 cattle in the shipment had to be slaughtered. Bahrain was previously thought to be free of the disease.⁶¹

10.27 Sheep pox is a viral disease that is very severe and often fatal, with mortality rates reaching 70 per cent.⁶² It is possible to vaccinate Australian sheep on arrival and isolate them until they are immune.⁶³

10.28 Foot and mouth is another deadly viral disease which is dangerous because of its ability to spread rapidly. Paxton reported that the Middle East importers accept 'in principle' that Australian sheep should be separated from sheep and goats from other countries. This principle is fully applied in practice by only a few companies but it is gradually being applied more widely.⁶⁴

10.29 Screw worm fly is another serious threat to sheep health and welfare. Without treatment 'the animals are almost invariably killed by the parasite within about 2 weeks of the initial infestation'.⁶⁵ Meischke reported the prevalence of screw worm fly in Bahrain in 1981 and it was first diagnosed in south-eastern Saudi Arabia in 1980.⁶⁶ Both Napthine and Meischke reported no evidence of screw worm fly in Kuwait.⁶⁷

10.30 Overcrowding of feedlots can occur because of the increased demand for sheep during Sawm, the daylight fast during the month of Ramadan which occurs 11 days earlier in each Gregorian year. During Ramadan it is said that there is an increased demand for red meat as Muslims observe custom more closely. This demand is anticipated by purchasing extra supplies of live sheep.⁶⁸ The ALEA stated that there are facilities available to ensure that supply can be maintained at times of peak demand. However, Paxton observed that the increased demand could 'overwhelm' feedlots and result in suffering for livestock owing to inadequate shade, water and feed. He reported that in 1983 demand was over-estimated so that sheep were held for

longer periods than usual. Ramadan has coincided with the Arabian summer since 1980 and it will continue to do so until 1986.⁶⁹

Sheep Slaughtering Conditions in the Middle East

Halal Slaughter

10.31 Halal slaughter is the method of slaughter employed by Muslims both in Australia and the Middle East. According to the AMLC the requirements of halal slaughter vary from country to country:

'It has to be slaughtered by an Islamic slaughterman who has to say a specific prayer and, dependent upon the country that it is going to, he may or may not have to face a specific direction. The animal has to die by bleeding, and there is then some variation on the acceptability of whether the animal can be stunned or not. In some countries, if you can demonstrate that electrical stunning does not kill the animal such stunning is permitted. If there is any question of whether the animal is alive at the time of slaughter then some countries may not accept stunning.'⁷⁰

Pre-Stunning

10.32 The AAHQs stated that without pre-stunning halal slaughter was cruel.⁷¹ The Victorian RSPCA added that although halal slaughter in Australia could only with difficulty be regarded as inhumane because it consisted of stunning and the cutting of the throat at the same time, slaughter methods in the Middle East were inhumane because there were deficiencies in stunning and in 'inducing, as far as is practical, instant unconsciousness in the animal'.⁷²

10.33 The RSPCA (Victoria) criteria for humane slaughter are those adopted by the EEC. Whatever means of slaughter is used on the animal it should induce, as far as possible, 'instantaneous unconsciousness followed quickly by the physical death of the animal'.⁷³

10.34 The Victorian Department of Agriculture commented that stunning is not always as efficient as is assumed. Slaughtering sheep by severing the cervical blood vessels in the spinal cord is practised throughout Australia. It is argued in some quarters that if it is done correctly it is an effective method of slaughtering.⁷⁴ The AMLC indicated that sheep are slaughtered in the Middle East without the benefit of stunning.⁷⁵ Meischke visited slaughterhouses in Bahrain, Saudi Arabia, Egypt, Syria and Kuwait. With the exception of Syria, sheep were slaughtered by cutting the throat and severing the spinal cord. He reported that in Syria the spinal cord was not severed.⁷⁶

10.35 Mr Jack O'Toole has visited the Middle East on four occasions since 1975 and has inspected halal slaughter conditions on each occasion. He commented:

'It certainly has not improved with every visit ... What is required in Australia is that the animals must be pre-stunned before they are slaughtered and that means that the animal is hit with an electric charge sufficient to bring it down; that is, to make it unconscious long enough for the throat to be cut and for the animal to then bleed to death. Preference among our people is that the throat should be cut in such a way that the joint between the neck and the head is severed so that the spinal cord is cut and the animal is properly in a state where it will not regain consciousness. We do a modified kill in Australia, which circumstances require us to perform, and that is that the neck is not always broken for the Muslim market, or for a market that we do service in the Middle East. That means that the throat is cut but the neck is not broken.

That ensures that the animal does bleed to death, but it may be able to regain consciousness before it bleeds to death, although it is unlikely if the stun has been done properly.

We believe that those standards are minimum standards. They are certainly not even approached in the Middle East in the places that I have seen, and in those circumstances we believe that the standards that we impose upon ourselves in Australia should have some relevance to the stock that we are exporting.⁷⁷

10.36 In a study by Newhook and Blackmore it was demonstrated that if all arteries in the neck were severed it took up to nine seconds for a sheep to lose consciousness. For animals with only one severed carotid artery this time was extended to 25 to 30 seconds and some detectable degree of brain activity continued for up to 77 seconds in sheep and 105 seconds in lambs.⁷⁸

10.37 Lt Colonel Harries commented that the Egyptians in their main Cairo College would accept stunning prior to slaughter as would those in Kuwait. He found that the problem was that the interpretation of the Koran was fragmented, with each religious leader having his own idea of what 'halal' meant. He believed that if stunning were promoted as part of a programme to increase efficiency in the use of equipment in the abattoirs, religious authorities in the Middle East may eventually accept it.⁷⁹

Abattoir Conditions

10.38 The general conditions of slaughter in the Middle East may also be unsatisfactory by Australian standards. Lt Colonel Harries commented on the Malakh Abattoir in Kuwait:

'It was a total mess when I saw it at that time (1981). Sheep were mobbed up and driven into a room. They were jumped on by slaughtermen and turned over and their

throats were cut, and they were left there in view of the other sheep, which we do not think is a good thing. It was all a massacre of the innocents. It was done extremely fast, I give them that, but it was badly organised, inefficient and incompetent, which gave a totally bad impression. The handling was fairly rough as well. They were full of protestations that this was only a temporary thing and it would be changed fairly shortly ... I am informed that it has changed for the better.'⁸⁰

10.39 Lt Colonel Harries also reported that at this abattoir there was no attempt to break the neck or sever the spinal cord. The entire operation was conducted in a welter of blood and would have been totally unacceptable in Australia on grounds of cruelty and lack of hygiene. Napthine reported that this abattoir was owned and operated by the Kuwait municipal authorities. It was built to handle 400 sheep per day but in 1981 was killing over 1000 per day. Napthine commented that the facilities were 'antiquated, inefficient and by Australian standards unhygienic'.⁸¹ Plans to build a new abattoir were 'in hand' in 1981 but they had been in hand for over four years.

10.40 Harries and Napthine also visited one small town slaughterhouse in Bahrain, which was not in operation at the time of their visit. They were informed that the method of slaughter did not differ from that in Kuwait. Napthine reported that it consisted of one large open room, the floor of which was guttered to allow for blood and waste disposal. Napthine regarded it as 'rather primitive'.⁸²

10.41 In Saudi Arabia most of the abattoirs are owned by the Government. They are operated by private companies on a contractual basis and the municipalities provide the veterinary inspections.⁸³ Modern abattoirs have been established in most of the major centres of Saudi Arabia in order to discourage home slaughter.⁸⁴ Mr Ralph James visited the Middle East in 1982 with the Australian Sheep Meat Study Mission. He inspected

abattoirs in Saudi Arabia that were available to sheep purchasers. The sheep were received at 4.00 pm, slaughtered overnight and delivered for 'hot' sale the next day.

'The horrendous stories of the way sheep are slaughtered there I believe are just not true. Modern abattoirs are stationed throughout and I understand are being improved.'⁸⁵

Non-Abattoir Slaughter

10.42 Messrs Dransfield and O'Toole, who were both members of the 1982 Sheep Meat Study Mission to the Middle East, commented on the practice of private slaughter. Sheep in small pens were bought from traders in the suburbs and then transported in high temperatures in the boot of a car to the abattoir.

'It was very cruel. I have seen those same animals put on the floor with a foot on the head and a knife just run across the throat.'⁸⁶

10.43 This procedure was encouraged in Saudi Arabia to stop backyard slaughter because disease has spread 'right throughout the community'. The abattoir built in 1982 was opened specifically to cope with slaughtering of livestock for the population, and no charge was made.⁸⁷ Jack O'Toole argued that it was a skilled job to kill an animal. Sheep were strong animals that needed proper handling to be killed humanely:

'You just cannot kill one every twelve months or on someone's birthday and do it humanely, because the animal must be controlled and it must be slaughtered humanely. There is no way that you can do that if you do it once a year and use inadequate methods or tools.'⁸⁸

10.44 Meischke reported that in many Middle Eastern countries the law forbidding home slaughtering is lifted for one or two days per year for religious reasons. He also commented that it is possible that slaughtering techniques used by the general population during this period may be inhumane.⁸⁹ However, there is considerable evidence that home slaughter occurs much more often and much more casually, and that there is no requirement that sheep be killed at a local abattoir.⁹⁰ In addition, the conditions of home slaughter may be inhumane by western standards. This was demonstrated with the ritual slaughter of a sheep in London to celebrate the return to London of an official at the Iranian Embassy, after a pilgrimage to Mecca for the celebration of the Id Al Adha religious festival. Had diplomatic immunity not been invoked charges may have been laid under the Cruelty to Animals Act.⁹¹

CHAPTER 11

ANIMAL WELFARE AND ECONOMIC CONSIDERATIONS

11.1 It has become apparent in the course of this inquiry that animal welfare affects the economics of the live sheep trade and vice versa. In particular, the AVA stated:

'We support the principle that animals should be slaughtered as near as practicable to the point of production, but recognise that both interstate and overseas transport is necessary to ensure the flexibility and economic viability of the Australian livestock industries.'

11.2 Before considering whether the export of live sheep does ensure the 'economic viability' of the Australian livestock industries, the relationship between economic considerations and animal welfare needs to be examined.

Welfare and Profitability

11.3 A common assertion is that welfare and profitability go 'hand in hand'. With regard to the live sheep trade this is true in many instances but there are circumstances where profitability and welfare conflict. It has been claimed that if the stocking densities aboard the carriers are reduced by ten per cent, the cost of sheep landed in the Middle East will increase by five per cent; that ration formulations are prepared with regard to cost and not to adequate nutrition; that if sheep are removed one day earlier from the feedlot, the financial cost of the deaths of sheep who have not adapted is more than

balanced by the savings in feedlot costs. These examples indicate that welfare and profitability, of themselves, are not necessarily complementary.

Economic Value

11.4 Profitability is an economic value. Just as Dr Roger Meischke has commented that measuring stress is like attempting to measure love and hate² so the Committee has found it difficult to reconcile economic value with animal welfare. At the first public hearing of the inquiry, the NFF drew attention to Mary Midgley's book 'Animals and Why they Matter'³. In this book she refers to those people who operate with a simple contrast between values which they see as real and those which they see as unreal - that is economic and non-economic values. It is a notion of reality as coextensive with economics. She comments:

'Money is a useful means, but it cannot possibly be an end, let alone the only real end of life ... you certainly can't eat it. A romantic obsession with it does indeed give meaning to some people's lives. But there is no sort of reason for the rest of us to accept their short cut through the business of understanding and comparing values ... These questions about priority among values are the central business of morality ... We are still concerned ... with getting animals an admission ticket to the moral scene at all. We are still confronting the rationalist notion that they fall outside it.'⁴

11.5 The eighteenth century German philosopher Immanuel Kant argued that rationality and intelligence were the only criteria for moral consideration. Only rational beings, and therefore human beings, were ends in themselves and possessed intrinsic value; that is, they were not to be treated simply as a means to some end. The Kantian argument has had considerable currency as an attempt to impute value on grounds of morality, albeit confined to human beings.

11.6 In response to Midgley, the BAE agreed that there are 'obviously other values than economic values' but continued that 'although money is not everything, what comes second is often a long way behind'.⁵ When asked whether these other values take precedence over economic values the reply was that this required a 'value judgement', that the weighing up of values, 'be they economic or other values, are really for politicians to decide'.⁶ At a later point in the questioning, the Acting Deputy Director of the BAE stated that 'the whole of economics boils down eventually to a matter of value judgement, let us face it'.⁷

Fact and Value

11.7 The BAE reply incorporated an ethical distinction in that the term 'value judgement' reflects the long standing ethical controversy between 'fact' and 'value', that values are in some way independent of facts, that for it to be otherwise is to commit the supposed 'naturalistic fallacy'.⁸ Concerning fact, the ALEA commented that Singer's 'distortions of fact and logic discredit the basis of the Animal Liberation movement's attitude on livestock industries ... for the attack of animal liberation to be taken seriously by livestock industries (and researchers), the movement must adopt a factual, objective stance and make a more positive contribution to the complex question of animal welfare'.⁹

11.8 Professor Singer replied that there is a philosophical fallacy involved in deducing values from facts. He commented:

'It is not one that I have committed and I would certainly have liked the Livestock Exporters Association to attempt to document the places in my books ... where I have made errors of logic.'¹⁰

If you have a series of purely factual statements with an evaluation built into them - sometimes factual statements have evaluations built in with them, for instance if you describe an action as "courageous" that is both factual and evaluative - I do not believe that you can logically deduce any purely evaluative judgement from it. You need to have some kind of ethical or value premise in at the top to get an ethical or value conclusion out at the bottom.¹¹

11.9 Consideration of the dichotomy of fact and value has not been confined to moral philosophy. It is an important consideration for government policy making and also the social sciences. Facts, or empirical information per se, are not able to provide a basis for policy choices. Rein has stated:

'Policy recommendations are by their nature based upon verified fact statements as well as arbitrary value judgements, and they will naturally be accepted by those who agree with both. The problem is how to link the factual and arbitrary components.'¹²

Animal Welfare and Economic Considerations

11.10 The House of Commons Agriculture Committee on Animal Welfare in Poultry, Pig and Veal Calf Production, meeting in the 1980-81 session, considered the policy issue of animal welfare and economic consequences. They noted that discussion on animal welfare had reached 'a degree of philosophical subtlety worthy of the mediaeval schoolmen',¹³ but were not impeded by Thomist or indeed, Singerian arguments. They stated that:

'society has the duty to see that undue suffering is not caused to animals, and we cannot accept that that duty should be set aside in order that food may be produced more cheaply. Where unacceptable suffering can be eliminated only at extra cost, that cost should be borne or the product foregone. On the other hand all methods of domestic livestock rearing entail some loss of freedom, and where an imperfect but not

unacceptable system can be improved only at disproportionate cost, it may be unreasonable to insist that this be done. Once again a balance has to be struck, and this can only be done in the light of subjective judgement.'¹⁴

11.11 In Australia there appears to be a division between Singer and other welfare advocates on the one hand and sources of primary industry opinion and influence on the other. The latter seem unwilling, unable or reluctant to consider questions of value. Conversely, animal welfare groups seem unwilling, unable or reluctant to consider the question of economics. For example, RSPCA (Victoria) argued that the live sheep trade should be terminated on welfare grounds. When asked what the cost of that proposal would be they answered that 'it would be quite considerable'.¹⁵ No monetary value of the cost of the cessation of the trade was given. On the other hand, in its 1983 report, the BAE attempted to isolate and quantify the costs of various methods of restricting the supply of sheep to the Middle East, but when asked if any money value had been assigned to the disutility and deaths experienced by sheep aboard the carriers, the answer was that the Bureau had not looked at the money value of deaths on ships and the question of disutility was not considered.

Utility and Utilitarianism

11.12 The concepts of utility and disutility are fundamental to economics. Douglas Evans defined utility as:

'the capacity to satisfy human wants. This capacity may be found in goods or services, and the worth of such goods and services to the consumer is determined by the degree to which they are capable of satisfying his wants. While this degree cannot be objectively measured it is reflected in the price which the consumer is prepared to pay. And in economic theory the theory of value is often equated with the theory of prices.'¹⁶

11.13 The concept of utility is also central to the ethical tradition to which Professor Peter Singer subscribes, that is utilitarianism. This holds that the ultimate good is the greatest happiness of the greatest number and defines the rightness of actions in terms of their contribution to the general happiness. Singer derived from this tradition the principles of equal consideration of interests. Singer has not been able to ignore the economic dimension of animal welfare. Professor Tom Regan, whose arguments for animal welfare are essentially moral rights arguments, not utilitarian, has commented that 'the animal industry is big business',¹⁷ that employs hundreds of thousands of people who in total have hundreds of thousands of dependents. Although it is no defence of an immoral practice to plead that some people profit from it, Regan argues that, as a utilitarian, Singer must insist on the relevance of these people's interests and also the relevance of those additional people who might be affected by 'its sudden or gradual cessation'.¹⁸ A utilitarian argument must have the hard data to show that a humane alternative is not only possible but is at least probable and, judged on utilitarian grounds, desirable. It is not obviously true that the consequences for all involved would be better if, for example, the live sheep trade were terminated. Regan argues that considerable calculation would be necessary. 'Even the most sympathetic reader, even a "fellow traveller" like myself will fail to find the necessary calculations in Singer's work. They simply are not there.'¹⁹ In short, the assessment of value, from a moral point of view, cannot be quantified.

Moral Values, Economic Values and Social Policy

11.14 Conversely, economic values may become 'rubbery'. What time period is used to amortise the investment in a live sheep carrier? What are the social costs of antibiotic resistance induced by administration of antibiotics in the sheep water

supply? Further, economic values may not conform to moral values. One economist has suggested that the market for heroin is just another market. Dr Robert Marks, senior lecturer at the Australian Graduate School of Management has argued that the costs to society of prohibition far outweigh the costs of a policy of decriminalising heroin and thereby possibly making it more freely available.²⁰ This argument does not address the ethical dimension of addiction. This dilemma for social policy of possible conflict between moral values and economic values has an extended history. Child labour and prohibition of alcohol are notable examples, animal welfare has become another.

CHAPTER 12

THE BENEFITS, BENEFICIARIES AND COSTS OF THE LIVE SHEEP TRADE

12.1 The ALEA has stated that:

'The Australian economy has been a major benefactor (sic, beneficiary) of this fledgling but developing industry, not only in terms of export earning but also, and of equal importance, in terms of employment, "spin-off" benefits to local communities and the addition of another outlet for its produce within the rural sector.'¹

12.2 It is not readily apparent what is the nature of the benefit and in what way it has been allocated.

12.3 The Committee agrees with RSPCA Australia and the AVA that slaughter as near as possible to the point of production is a valid welfare principle. It now becomes necessary to determine who does benefit from the trade, if not the sheep, and whether this benefit justifies the continuation of the trade.

Perceived Benefits to Australian Sheepmeat Producers

12.4 The most immediate consequence of the export of live sheep from Australia has been the changed structure of the Australian flock. In 1976 breeding ewes formed 37 per cent of the national flock, in 1978 it was 43 per cent and by 1981 had stabilised at 40 per cent.² There was a corresponding decrease in the number of wethers, especially in the four years and above age group. It has been argued³ that this decrease in mean age in the flock has meant:

- . decline in death rates;
- . better animal health; and
- . greater ability to handle transport and travel stress.

12.5 It has also been argued that this has meant a productivity increase in terms of sheep replacements and an increase in turnoffs.⁴ However, Read, in his report prepared for the AMIEU, has claimed that there has been a shift from wool production to meat production as some sheep have been turned off for export at a younger age instead of being retained for wool production.⁵

12.6 The Wool Council of Australia supports the live sheep trade as an important component of the wool and sheep industry. It argued in its submission⁶, using BAE data, that the trade has raised sheep prices above levels that would have prevailed in the absence of the industry. It also argued that, in the longer term, with a greater number of ewes than wethers, the trade will increase the number of sheep, leading to a greater number of slaughterings in Australia than would be the case in the absence of the trade.

12.7 However, Read has argued that the BAE based these assertions on the use of an econometric model. This was formulated by estimating that, for any change in prices for sheep, there would be an increase in the size of the sheep flock and in the number of sheep sold. 'Hence the model predicted an increase in the size of the sheep flock and an increase in the number of sheep slaughtered due to the way in which the model was specified.'⁷ Producers could respond to increased prices by changing the composition of their flock and increase turnoff independently of any change to the size of the flock.

12.8 The trade has also meant an increase in export earnings but whether these export earnings are a product of additional demand or whether they are simply a displacement of domestic earnings is unclear.

12.9 One consequence of the economic structure of the export trade, in particular the cost differential between Western Australia and the eastern States of about \$5 per head, is that the trade has made a more significant impact in Western Australia and, as a result, the flock in Western Australia has a much higher proportion of younger sheep. There is further evidence that the industry base may be shifting east, as the available supply of wethers decreases in Western Australia.⁸

12.10 Various commentators and organisations have assigned monetary values to the benefits received by producers. For example, ACLA estimated that the price of sheep would fall by 50 per cent if there were no export market.⁹ 'Onlooker' in the Land forecast an immediate fall in the price of sheep by \$7 or \$8 a head.¹⁰ However, none of these claims has been substantiated.

The BAE Analysis of Returns to Producers

12.11 The Committee asked the BAE for the precise benefit in money terms to Australian producers of exporting their sheep to the Middle East rather than slaughtering them in Australia. The reply was that it was extremely difficult to answer. The gross value of the trade was \$217 million, but the net benefit could be ascertained from examining multiplier effects and the extra benefits that would be derived from the sale of slaughter sheep.

12.12 The 1983 BAE report stated that simulations using the BAE econometric model of the sheep industry indicated that 'average prices received by farmers for sheep may have been raised by as much as 20 per cent as a result of the trade'.¹¹

12.13 It estimated the effects of the live sheep trade for 1980-81. If the trade were terminated and mutton sales increased by 20 per cent and lamb by 25 per cent, the effect on the gross

value of production of sheep and wool would be a decline of \$220 million. The NSW Department of Agriculture estimated that, if the BAE figures were correct, this would mean \$2600 lost revenue per sheep property in NSW, representing a 25 per cent decrease in farm operating surplus.¹²

The Degree of Substitution of Sheepmeats

12.14 Both the BAE and the NSW Department of Agriculture agreed that the 1983 BAE Report consisted of considerable econometric analysis but that the fundamental question was the degree of substitution of refrigerated sheep meat for fresh sheep meat.¹³ The BAE acknowledged that on that critical question it relied on information other than quantitative data.¹⁴ As to the question of whether further research could be conducted the BAE replied:

'Unless we get that time series data, which to the very best of my knowledge does not exist, we are really up against a brick wall in trying to give you estimates of those cross price elasticities.'¹⁵

12.15 The BAE recognised their limitations of knowledge in that area in terms of quantitative estimates but added that, in attachment A of the report, there was 'a body of evidence' to suggest these elasticities were low.¹⁶ This evidence in the report appeared to be anecdotal and unsubstantiated.

Managed Demand and Substitution

12.16 Without this hard data of cross-price elasticities, the question of degree of substitution is uncertain. It is also clouded by the question of managed demand. The AMIEU claimed that if consumers in the Middle East were not given the vote and if the ownership of the importing companies was largely in the hands of the ruling families, how could consumer preference

operate? The degree of substitution of refrigerated meat for fresh meat simply became administrative fiat. The BAE did not believe, however, that the Middle Eastern demand for sheep meat was managed demand, except in Iran.¹⁷ In 1981 in the space of a few months, Iran terminated the annual importation of 2.4 million live Australian sheep and replaced it with a New Zealand refrigerated lamb carcass trade of 93 000 tonnes.¹⁸

12.17 Either government direction or monopolies could influence consumer preference. If the industry were concentrated, there would be the possibility of managed demand. The BAE stated that:

'Knowing that we must draw the boundary somewhere in our analysis, we recognised that there was a degree of concentration in the live sheep trade, but we were not overly concerned with it as part of our analysis.'¹⁹

12.18 A little later, the BAE went on to say:

'The question that we were looking at was what would be the implications for Australia? The producers at that stage were - and, in fact, I believe still are - quite satisfied with the price they are getting for live sheep. What one would expect from a monopoly situation is that, to quote a phrase, "The producer is getting ripped off by the monopoly". There was no evidence of that.'²⁰

At the time of the drafting of the BAE report, delegates at the 1982 Conference of the LGPA, moving a resolution for AMLC intervention in the trade, referred to the 'increasingly monopolistic nature' of the live sheep trade. Senior Vice President, Mr Dick O'Brien, said that 'it would appear the producers are not getting the true price for their export wethers'. Mr Bill Yates of Garah said producers were clearly being 'ripped off' under the present live sheep export system.²¹ There is also evidence of vendor resistance. There

are reports that Western Australia producers have been reluctant to sell export sheep for less than \$18 to \$22 while in the eastern States the prevailing price is \$16 to \$18. This reluctance may partly be explained by²² the disinclination of producers to sell young sheep specially bred for the trade at the same price as old wethers.

12.19 The BAE indicated that the trade was 'highly concentrated', that the number of traders had diminished, and that it was becoming more concentrated.²³ However, there was no evidence yet that monopoly rents were being extracted from the industry.²⁴

12.20 With the Australian sheep flock increasing in size over the last few years, if monopsony or cartel buying pressure were applied, the Australian sheep industry would be vulnerable.²⁵ The main consideration would not be the degree of substitution, but the degree of countervailing economic power that could be deployed by Australian producers to protect their returns. In other words, if a cartel were established which disadvantaged the Australian sheep industry, for example, in the prices offered for Australian sheep, it might be necessary for the AMLC to consider using its available powers to market live sheep for export on behalf of producers to ensure a fair return to the sheep industry.

Other Difficulties with the BAE Analysis

12.21 The use of exogenous variables such as MED 'Middle East Dummy' was not clear. The data for the Middle East was unsatisfactory. The BAE told the Committee:

'We have found it extremely difficult to get comprehensive data for prices and quantities of consumption in the Middle East that would stand up to the rigours of econometric analysis. The data, as far as we know, is just not there in a form that we could use.'²⁶

12.22 This last comment highlights a weakness in the BAE study. The BAE's findings, that the live sheep trade has raised sheep prices above levels that would have prevailed in the absence of the industry and that it contributes to the viability of the Australian livestock industries cannot, in the view of the Committee, be regarded as definitive. The results of econometric analysis data are only as reliable as the data which is used. In this case, the BAE acknowledged that the accuracy of the Middle Eastern data, which were the best available at the time, was open to question. Read claimed that 'crucial aspects' of the model were specified incorrectly, in particular, the supply responses to the increases in demand for live sheep and the effect of the price for mutton on the quantity of mutton which was demanded.²⁷

Other Benefits to the Australian Economy and Multiplier Effects

12.23 The NSW Department of Agriculture gave evidence that the live sheep trade has increased farm income flows through to other sections of the economy such as: 'machinery firms, fertiliser and other input supplies, and most rurally based small businesses'.²⁸ The Department used a multiplier of two to calculate the wider benefits of the live sheep trade which for 1980-81 was \$220 million times two or \$440 million nationally. The Department has used this multiplier in all its publications and it stated that it errs on the conservative side, but it does ignore the possible substitution effect into wheat, beef or other industries.²⁹

12.24 The ALEA attempted a similar exercise. It assessed the economic benefits accruing to Portland and environs from the live sheep trade in March 1984. This excluded the farm gate price paid to farmers for their sheep. Each time a ship loaded about 110 000 sheep, it benefited Portland and the surrounding

region to the extent of a direct cash input of \$897 380.³⁰ It included operations such as shearing, cartage, feedlotting, wharf labour and charges and pellets for the carrier. For seven million sheep per year this would be nearly \$57 million.

12.25 Other evidence was given to the Committee on the value added prior to export of the live sheep trade and the carcass trade. In the publication, The Truth About the Live Sheep Trade,³¹ a telex quotation for the delivery of 20 600 live sheep for loading in Adelaide in 1982 was compared with processing costs from the Western Australian Lamb Marketing Board quoted in Farm July 1981. Allowing for 11 per cent inflation, at 1982 prices carcass lamb contributed an additional \$3.28 per sheep to the Australian economy above that which was contributed by each sheep exported live. At seven million sheep per year this would be an additional \$20.4 million. Using a multiplier of two it would be \$40.8 million or nearly one-quarter of the FOB value of live sheep exported in 1981-82.³² The NSW Department of Agriculture questioned the efficiency of the Western Australian Lamb Marketing Board but these results do indicate a not inconsequential contribution to the Australian economy. They also do not include the benefit of processing within Australia of by products such as skins, offal and glands, nor of the final price received for the exported carcass.

Profitability and Competition

12.26 Early in the 1980s, the trade was generally profitable but in the last two years, the available evidence indicates a downturn in profitability to the point where it is believed that some exporters have been making losses. Three exporters have left the trade in the last 18 months.³³

12.27 Competition among exporters has also increased significantly in the last two years and there is evidence of price-cutting in Kuwait between KLTT and a competitor. KLTT's dominant position in the trade has also been challenged by SLTT which has been steadily increasing its market share. The AMLC told the Committee that SLTT had assured it that it did not intend to monopolise the trade in Saudi Arabia, but the AMLC added that, as the SLTT expands its operations, its competitors may no longer be able to compete.³⁴

12.28 Both Fares and Siba, the other two integrated companies, are maintaining strong positions in the trade despite increased competition and lower profitability.³⁵

Barriers to Entry

12.29 Barriers to entry are a standard device used to reduce free competition. SLTT stated:

'Saudi Arabia, as far as business is concerned, is a free enterprise market and anyone can establish his own company in whatever areas he sees fit.'³⁶

Metro Meat Ltd was asked whether the Middle East was a market with open competition, or whether there was any restriction on dealings in the live sheep market in certain Middle Eastern countries. The response was:

'No, there is not. People come to us for supply all the time. There are the main buyers, of course, and there are the opportunity buyers.'³⁷

This is in conflict with other evidence the Committee has received.

12.30 The Senior Australian Trade Commissioner at Bahrain, in a communication to the Department of Trade of 7 July 1984, commented that SLTT had already taken 'the dominant position' in the Saudi market. He referred to a regulation, passed four years previously, which stated that only ships built or converted to Saudi specifications would be allowed to discharge in the Kingdom. He added that, although the regulation has not been invoked, invocation may be imminent as SLTT now controlled its own fleet. No other carriers comply with the regulation and its invocation would mean that only Saudi ships could carry live sheep to Saudi Arabia.³⁸ Subsidies are used as barriers to entry³⁹, such as subsidies on sheep, carcass, livestock feed, oil bunkers, slaughter and transport. It has recently been decreed in Kuwait that no importer will get the 2.5 dinar subsidy on sheep unless those sheep are imported on KLTT ships.⁴⁰ Restrictions on land ownership are also employed.⁴¹

Middle East Investment in the Trade

12.31 The four integrated companies, three of which are based in the Middle East, are responsible for the purchase of approximately 85 per cent of the sheep available for export.⁴²

12.32 The role of petro dollars in the live sheep trade has been fundamental. From 1971 to 1973 and 1978 to 1979 substantial increases in the real price of oil enabled oil producing countries to invest surplus revenue overseas and recycle petrodollars through the massive purchase of goods, services and technology.⁴³ The Commonwealth Treasury noted that:

'the massive revenue from oil produced in the Middle East has generated a significant new market for goods and services as well as creating a new avenue of investment funds for the world's capital markets.'⁴⁴

However, Professor Stuart Harris then Professor of Resource Economics at the Australian National University, noted that the world oil market was very volatile with small changes in supply and demand leading to shortages and gluts which disguised the long-term position.⁴⁵ This volatility of oil revenue could have considerable impact on the live sheep trade.

12.33 Middle Eastern interests have invested in export feedlots and have attempted to invest in feedmills but have been prevented by the requirements of the Foreign Investment Review Board. A large percentage of the shipping has been purchased by the proceeds from oil revenues. The interests associated with KLTT have borrowed large amounts of capital from the Kuwait Government to purchase large, obsolete oil tankers and convert them to live sheep carriers at a cost of approximately A\$30 million for each conversion. They have also borrowed funds to set up the infrastructure in Kuwait to handle and process the sheep imported from Australia.⁴⁶

12.34 It is reported that Kuwait capital has been invested in Australia. A new pastoral house has been launched in south-east Australia. Challenge Mercantile is 50 per cent owned by interests associated with managing director, Mr Jeff Chapman, and 50 per cent by the Australian subsidiary of the New Zealand Investment Bank, Australian Investment Company, Ltd, (AIC). The AIC, in turn is 49.9 per cent owned by the large international bank, Kuwait Asia Bank E.C.⁴⁷ Mr Chapman said:

'That this (Kuwait) connection gave Challenge the financial alternative to draw on overseas funds when interest and exchange rates were favourable or when Australian money conditions are tight.'⁴⁸

12.35 He referred to major trading implications for Challenge as Kuwait and Bahrain were also important destinations for Australian live sheep.

Costs to the Meat Processing Industry

12.36 The Australian meat processing industry is heavily labour-intensive and decentralised. The IAC commented:

'Meat processing is Australia's major food manufacturing industry ... The industry employs some 39 000 persons, a significant proportion of whom are located in country towns in which the local abattoir is often the major employer and provides the "economic base" for the local community.'⁴⁹

12.37 The meat processing industry has a very large employment multiplier of 3.44, as determined by the Victorian Department of Industry, Commerce and Technology. This compares with the motor vehicle and textile industries of 1.57 and 1.45 respectively, which means that for every \$100 of income earned in the meat processing industry, there was employment generated which earned \$244 of income for employees in industries that were connected with the meat industry.⁵⁰ As a consequence of this, the meat processing industry creates as much employment within Australia as the motor vehicle industry. In addition, the AMIEU argued that it does it at less cost, as the effective rate of assistance to the motor vehicle industry, as estimated by the IAC in 1981-82, was 124 per cent whereas it was six per cent for the meat processing industry.⁵¹

Abattoir Closures and Unemployment

12.38 It is unclear to what extent the live sheep trade has been responsible for abattoir closures and unemployment in the meat processing industry.

12.39 In 1973 Australia exported 300 000 tonnes of mutton. This included the carcass equivalent of 18 000 tonnes of mutton from the 906 000 sheep exported live. Saudi Arabia and Kuwait

imported only 13 000 tonnes (less than five per cent) of which half was from live sheep and half was processed mutton. In 1983 total mutton exports were 240 000 tonnes which consisted of 94 000 tonnes in processed form and the equivalent of 146 000 tonnes (60 per cent) from live sheep. Saudi Arabia and Kuwait had increased imports to 113 000 tonnes or nearly half of Australia's total mutton exported, which consisted of 7000 tonnes of processed mutton and 106 000 tonnes from live sheep.⁵²

12.40 The AMIEU produced the following table⁵³:

Table 12.1: Slaughter of Livestock 1973 and 1983

<u>AMIEU MEMBERSHIP</u>	<u>SHEEP</u>	<u>LAMBS</u>	<u>CATTLE</u>	<u>CALVES</u>	
	<u>(MILLION)</u>	<u>(MILLION)</u>	<u>(MILLION)</u>	<u>(MILLION)</u>	
1973	50,663	16.5	15.6	6.9	1.2
1983	40,953	9.3	16.0	6.5	1.4
Difference	-9,710	-7.2	+0.4	-0.4	+0.2

Source: Evidence, p. S2051.

12.41 The AMIEU argued that this demonstrated that the decline in membership was related to the reduced sheep kill and dispelled the claim that Union membership had declined as a result of the reduced beef kill.

12.42 In 1983 and 1984 40 abattoirs closed in Australia.⁵⁴ In NSW 14 abattoirs closed between 1980 and 1984, including six local government works, the upkeep and interest payments of which were costing taxpayers over \$5 million per annum. In December 1984 the NSW State Government offered a financial settlement to the local government owners of the abattoirs worth nearly \$45 million.

12.43 The AMIEU has claimed that the live sheep trade has directly contributed to unemployment in the meat processing industry since the total number of hours of employment varies almost directly with the number of sheep slaughtered.⁵⁵ This is compounded by the problem of profitability of a low throughput. The IAC Report on the Abattoir and Meat Processing Industry commented that:

'An abattoir which is designed for a small throughput and is able to operate at full capacity may be able to achieve lower unit costs than the larger abattoir which operates at less than full capacity.'⁵⁶

12.44 The AMIEU argued that the live sheep trade has taken constant numbers of sheep throughout the year. The supply of sheep is seasonal hence the live sheep trade considerably exacerbates the problem of availability of slaughter sheep out-of-season and contributes to diminished profitability. In addition, the live sheep trade takes the heaviest-framed sheep and leaves the meat processing industry with the lighter-framed sheep, which are less profitable to slaughter.

12.45 Profitability of by-products processing is very sensitive to throughput because it is capital intensive and has high fixed costs.⁵⁷

Meat Processing Costs and Offshore Processing

12.46 The Chairman of the Australian Meat Exporters Federal Council (AMEFC), Mr Kevin Bowtell, saw the reason for the closures as overseas competition; the EEC provided subsidies to their abattoirs and made no charge for inspections, whereas in Australia meat exports are taxed and inspection fees charged. He also said that private abattoirs would be prepared to invest to improve facilities to meet EEC and North American requirements.

12.47 The NFF and other producer organisations have blamed the AMIEU for the high cost of processing meat in Australia and the consequential closure of abattoirs. The Cattlemen's Union has recommended offshore processing of meat which, despite extra transport costs, would be cheaper than processing the meat in Australia.⁵⁸

12.48 At the centre of the debate about high processing costs has been the tally system. Under this system, meat workers process a set number of livestock for the day irrespective of the time it takes to complete the tally.

12.49 The Cattle and Sheepmeats Councils of Australia commissioned the W.D. Scott Report into the cost disadvantages in the meat processing industry associated with industrial conditions. It put the indirect and direct costs of tallies to the Australian meat industry at \$60 million each year.

12.50 There have been claims that the new Middle Eastern abattoirs have a processing capacity which exceeds domestic demand and that it may be possible for live sheep to be slaughtered in the Middle East and then the carcase exported. The AMLC said it was aware that Kuwait had a 'very big processing system' for imported sheep. It understood that some of these were re-exported in carcase form to Iraq. It was also aware that live sheep were re-exported from Jordan to north Saudi Arabia and from Kuwait to Saudi Arabia.⁵⁹

Value Added Prior to Export

12.51 The AMIEU questioned the view that the live sheep trade had created jobs and that these jobs would decline commensurate with a decline in exports.⁶⁰ The AMIEU argued that the carcase trade was more labour-intensive and therefore generated more employment within Australia;⁶¹ that is, value was added prior

to export. The policy of adding value prior to export is an important economic consideration. The New Zealand High Commission informed the Committee that:

'The New Zealand Minister for Agriculture, the Hon Mr Moyle, has pointed out that the Government favours the principle of adding value prior to export and that the live sheep trade is contrary to this aim.'⁶²

12.52 The Australian Minister for Trade, the Hon. J.S. Dawkins, M.P., has commented on the export of primary products and Australian trade policy:

'Primary producers must realize that, as they are having trouble selling their goods, Australia can no longer rely exclusively on the export of bulk raw commodities. If we did, we would see our standard of living decline. The composition of our exports has to expand and become more sophisticated if we are to have expanded and improved trading prospects.'⁶³

The BAE Analysis of Employment Effects

12.53 The ALEA described as simplistic the view that the live sheep trade had been responsible for the large scale loss of jobs in the meat processing industry and for the dramatic increase in the closure of abattoirs in Australia. It argued that it failed to accept or appreciate evidence to the contrary that there are 'strong and long term' benefits to the Australian community.⁶⁴ In support of this argument, the ALEA used the evidence presented in the BAE report, Examination into the Employment Implications of Live Sheep Exports April/May 1978 and a Note on Implications of Restrictions on the Export of Live Sheep to the Middle East September 1981 as well as the IAC report The Abattoir and Meat Processing Industry January 1983. The two earlier BAE reports were summarised and revised in the June 1983 BAE report Live Sheep Exports (Occasional Paper No.

81). The BAE report recognised that the trade had both created and destroyed jobs. In addition, although indirect jobs affected by the trade were not as visible, they should also be considered for a 'balanced assessment of overall employment implications of the trade'.⁶⁵

12.54 The BAE did not consider all multiplier effects, such as the revenue generated in Australia from the processing of the increased volume of carcase, and associated tanning, offal processing et cetera. The BAE explained that it did not consider multiplier effects because:

'If you get yourself into the area of attempting to estimate all the effects all the way down the line it becomes an extremely difficult job. In fact, unless you have a general equilibrium model which takes account of all effects such as that in a year, I do not think you can do it adequately.'⁶⁶

12.55 It appears dubious that by-product processing can be isolated as only a multiplier effect. By-product processing is integrated in meat processing in the Middle East.

12.56 The BAE analysed the statistics for livestock slaughter and meat processing employment and concluded that employment decline had been associated 'monthly' with declining cattle kills. The table they used for Australian data is as follows:⁶⁷

Table 12.2: Slaughter of Livestock 1976-77 and 1980-81

	EMPLOYMENT THOUSAND	SHEEP AND LAMB SLAUGHTER MILLION	CATTLE SLAUGHTER MILLION
1976-77	48.20	31.61	11.98
1980-81	39.34	31.97	8.43
Change	-8.86	+0.36	-3.55

Source: BAE : Australian Live Sheep Exports, Canberra 1983, p. 47.

12.57 There was one exception to the BAE conclusion. In Western Australia, the number of sheep exported live represents 'nearly half of the total number of sheep and lambs turned off'.⁶⁸ The BAE acknowledged that: 'The live sheep trade would have been a contributory factor to the fall in sheep slaughterings in that state.'⁶⁹ That analysis used data current to 1981. In the succeeding four years there has been a significant shift in the volume of sheep exports from Western Australia to the eastern States.

12.58 The AMIEU statistics given in paragraph 12.40 appear to be equally plausible. They are also more recent and cover a full decade instead of the four year time series of the BAE.

12.59 In 1984 the AMIEU commissioned Michael Read and Associates, consultants in agricultural economics, to examine the BAE arguments concerning employment effects of the live sheep trade. The consultants commented that Federal Governments, relying upon policy advice from the BAE and the conclusions of its reports on the live sheep trade, including the 1983 Report, have resisted any intervention in the trade.⁷⁰

12.60 The six major criticisms levelled at the 1983 BAE Report by Read and Associates⁷¹ were:

- '(a) the BAE's discussion about the relationship between number of sheep slaughtered and employment in the industry has been unsatisfactory due to the narrow definition of employment level which has been used;
- (b) the BAE have overstated the confidence with which the results of their econometric modelling should be interpreted;
- (c) the BAE have not established that there would be a demand for the additional slaughterings which they have predicted;

- (d) the BAE have been wrong to assume that any increase in the slaughter of adult sheep would come about mainly by an increase in flock size (hence they have wrongly predicted the impact on slaughterings and wool production); and
- (e) the BAE have ignored the decline in beef slaughterings which would to some extent offset increases in sheep slaughterings.
- (f) the BAE have ignored the depressing effect of the trade on the profitability of slaughtering those adult sheep which are not exported live.'

12.61 The 1983 IAC Report stated that:

'The evidence indicates that there are both short run and long run influences of live sheep exports, all of which could have some effect on slaughter levels. In the Commission's view, an assessment of the overall impact of these factors could only be made after a comprehensive investigation. This would involve the analysis of data and other information not available to the Commission in this inquiry.'⁷²

12.62 The problem of abattoir closures and unemployment in the meat processing industry remains. The 1982 Australian Sheepmeat Study Mission to the Middle East, which consisted of trade union, government and producer representatives, recommended:

'That the Australian Government advise importing countries that Australia's meat industry workers and processing industry are concerned at evidence of expansion of abattoir, meat processing, skin processing and by-products rendering facilities in the countries visited which were seen as not in Australia's best interests, particularly if the expansion is based upon the presumption

that Australian livestock will be the principal livestock slaughtered as Australian export policies will be directed towards increased sales of processed meats rather than livestock.¹⁷³

CHAPTER 13

THE MARKET FOR SHEEPMEAT IN THE MIDDLE EAST

13.1 The Middle Eastern sheep meat market is not homogeneous. The level of disposable income and consumption of sheep meat in Middle Eastern countries are dependent upon the level of oil revenue and hence vary considerably from country to country. The proportion of expatriates in the host country influences consumer preference for types of sheepmeat and levels of sheepmeat consumed.¹ The 1982 Australian Sheep Meat Study Mission to the Middle East noted that rising incomes and population growth, including substantial immigration, had resulted in 'very substantial' increases in meat consumption.² It also noted that in each country there were different market segments which catered for the differences in consumer taste of the indigenous and expatriate populations.³ This included the indigenous souk or village market, the expatriate market in the labour camps, the foreign tourist and business market in hotels and the like and the Mecca pilgrim market. The market was also segmented in terms of age groups and geography.

13.2 There is evidence that the boundaries of these market segments may be shifting. The 1982 Commission noted chicken production and consumption had increased 'remarkably' over the previous ten years.⁴ Since 1970 poultry consumption has risen from 22 per cent to 40 per cent of the market, while the sheep and goat meat market share has dropped by 30 per cent. It is also reported that, with an increase in beef consumption, the traditional preference for strong-flavoured mutton has waned.⁵ The taste for poultry developed initially with the expatriate labour force and has now shifted to the indigenous population.

With many of the projects now completed and a consequential reduction in the expatriate labour force this has left behind the catalyst for long-term changes in consumer tastes.⁶ The ALEA commented: 'The fast foods industry also has got its foot in the door, further changing eating styles and habits'.⁷

13.3 The Sheepmeat Council of Australia argued that the market for meat is well differentiated in the Middle East; frozen mutton and imported live sheep command different prices. The opportunities for selling carcass mutton in the Middle East are low because of this differentiation or segmentation of the market. Nevertheless, the Sheepmeat Council has a policy of development of a trade in both live sheep exports and carcass meat, frozen or chilled.⁸

The Middle Eastern Concern for a Secure Food Supply

13.4 Dr Al Dukhayyil, General Manager of the SLTT, agreed that the establishment of a secure food supply was 'very important' for Middle Eastern countries.⁹ This was confirmed by both Metro Meats Pty Ltd and Elders IXL Limited.¹⁰ The AMIEU commented that the ruling families in the Middle East were apprehensive about uprisings in their countries such as that which occurred in Iran. The maintenance of a secure food supply was seen as one way of keeping the loyalty of the population to the ruling families.¹¹

13.5 A number of other factors have been cited for this concern for a secure food supply. Population growth continues unabated, with the prospect of a doubling of the population within the next 30 years and has exceeded the rate of growth of the food supply. Food consumption is rising at 12.5 per cent per annum whereas food production was estimated to increase by 3.3 per cent in the 1970s. The Food and Agricultural Organization of the United Nations has estimated that cereal self-sufficiency in

the Middle East will decrease from 80 per cent in 1982 to 69 per cent by 1990. This has created a dependence on cereal imports from various countries including Australia. In most cases Australian exports of live sheep to the Gulf states are overshadowed by exports of grain and, to a lesser extent, other processed primary products, such as dairy foods.

13.6 Middle Eastern countries are concerned that denial of food supplies might be used as a political weapon, especially after the United States grain embargo against the Soviet Union in the late 1970s. They look to Australia as a 'potentially reliable source of food supplies free of political strings'.¹²

13.7 The corollary is that while Australia produces approximately two-thirds of its oil requirements, the Gulf countries supply 80 per cent of the remaining one-third which Australia is required to import. Exports of live sheep to Saudi Arabia in 1981 accounted for \$A45 million in foreign earnings, but Australia imported \$A1032 million in oil and oil products from Saudi Arabia in the same year.

The Demand for Fresh or 'Hot' Meat

13.8 If refrigerated sheepmeat could be substituted for fresh sheepmeat the need for the export of live animals would cease. The reason for this demand for live sheep is given as a consumer preference for fresh or 'hot' meat. The ALEA stated:

'There is no doubt that there is a preference in the Middle East for fresh meat. In fact it is not only fresh meat - it is hot meat. In other words they slaughter the animal in the morning and will eat that at lunch time or at the latest at dinner and this is the way they like their meat. They do not age it like we do. So they want hot meat as opposed even to what we consider as fresh meat.'¹³

13.9 The ALEA argued that the trade developed because not only have commercial interests responded to this consumer preference, but Middle Eastern Governments have also ensured that their population has fresh meat.¹⁴

13.10 However, the AMIEU did not accept that the population had this preference for the taste of freshly killed, hot meat. It stated that it was a 'fairy tale', that it was 'a concoction by the people who currently control the market'.¹⁵ It argued that the price for hot meat is lower than the price for frozen meats because of the application of subsidies to live sheep. 'The product is marketed at a price we could not compete with.'¹⁶

13.11 The AMIEU also argued that they had given credibility to the 'hot meat' notion for many years:

'And so did government agencies here in Australia, but it was admitted to us that everybody has a refrigerator and they admitted that they use refrigeration just the same as us. They do take home meat and refrigerate it. When we were in Saudi Arabia, for example, we were in Saudi Foods, which is a big distribution outlet, and it had a map of Saudi Arabia on the wall. It had spots of varying sizes depicting the size of the cold store. What was explained to us was that the meat was processed in Jiddah or Riyadh, and then it was transferred by road into the hinterland. It was not transferred fresh - it was chilled or frozen. It would have to be to maintain it to the distribution points it was going to.'¹⁷

Dr Al Dukhayyil of SLTT rejected this claim. He said that the Saudi Government had established abattoirs throughout the Kingdom and encouraged the local people to slaughter their animals there.

13.12 The Australian Federation of Islamic Councils (AFIC) stated that the demand for hot meat was not based on any religious principle.¹⁸ However, the Islamic or 'halal' requirements for sheepmeat have their own difficulties. AFIC stated that the sheep for slaughter should be male and entire, healthy, with all limbs intact, complete, and at least nine months old.¹⁹ SLTT commented that, in some quarters Australian sheep are not regarded as fit for sacrificial purposes during the haj because the tail is docked, which is regarded as a deformity.²⁰ However, the AMLC stated that in 1984 the Islamic Council of Saudi Arabia had permitted the use of Australian Sheep for religious ceremonial purposes owing to a shortfall in the supply of sheep from North Africa.²¹ AFIC explained that although Australian sheep did not meet Islamic requirements, they were cheaper than sheep from Romania or Argentina and were free of disease. In addition, AFIC believed that wethers were popular only with the expatriate section of the Middle Eastern population.²²

13.13 There is also the religious requirement that the pilgrimage to Mecca necessitates the slaughter of an animal.²³

13.14 The Committee is aware that influential Muslim leaders in the Middle East were concerned about welfare aspects of the live sheep trade. AFIC commented:

'An awareness is growing about the welfare of the animals during transportation, before they are loaded on to the ships, and after they are unloaded at the other end. This can become a very serious matter in view of the sayings of the Holy Prophet ... These are very serious matters because the Islamic approach is also humane.'²⁴

A little later, AFIC stated:

'We just quote what he (the Prophet) has said on this. He says ... "To be mindful of the comfort of an animal. When you travel during the season when there is grass let your camels avail themselves of this and when you travel during a dry season, hurry up so as to minimise the suffering of thirst and hunger and allay it sooner on reaching the destination." This has connection with the transportation of live animals from Australia.'²⁵

Sheepmeat Subsidies in the Middle East

13.15 The pricing of food supplies is an important policy consideration for Middle Eastern governments. Subsidies and administered price ceilings on food are commonly used in the Middle East. Mr J. Dransfield, a member of the 1982 Sheepmeat Mission to the Middle East commented that:

'We raised the subject of the subsidy and its application, and the inference all the time was that because the people are poorly paid it is better to keep them with a full belly so that they do not rebel. So the meat and other foodstuffs were always within their financial reach.'²⁶

13.16 These subsidies only apply to imported live sheep or airfreighted chilled lamb, not to frozen sheepmeat, with the possible exception of Iran, which does not import live sheep but does engage in a frozen lamb trade with New Zealand. Saudi Arabia has dropped its subsidy on frozen mutton imports.²⁷

13.17 The BAE has commented that subsidies increase demand for live sheep instead of frozen sheepmeat²⁸ and in some countries the fresh meat from imported live sheep is cheaper than refrigerated sheepmeat even though the real cost may be much higher. This may explain different consumption patterns in

some Middle Eastern countries.²⁹ There is a wide range of subsidies that are invoked for the whole range of the importing phase. There is a subsidy on live sheep, carcass, livestock feed, oil bunkers, slaughter and transport.³⁰ The SLTT informed the Committee that the bunker subsidy in Saudi Arabia is being progressively eliminated.

13.18 The subsidies are provided by the massive oil revenues generated in the Middle East but with the downturn in these revenues various subsidies have been reduced or withdrawn.³¹

13.19 The AMIEU claimed that subsidies can be used as barriers to entry to the industry:

'We are locked out of that market. In Kuwait it happens to apply through subsidies. Preference is given to meat from live animals. There is a subsidy paid to the Al Sabahs for the sheep they land.'³²

Preferential shipping regulations are cited as a barrier to entry,³³ and restriction of land ownership is another.³⁴

13.20 Mr Ralph James, the President of the Sheepmeat Council of Australia, commented on his return from the Middle East with the 1982 mission that there were 'a number of local barriers' to increased refrigerated sheepmeat imports. These included price control and subsidy arrangements 'which favour live sheep exports' and regulations which prohibited the using of frozen meat or required chilled meat to be sold at the same price as frozen meat.³⁵

The Iranian Example of a Shift in Consumption Patterns

13.21 In 1983 Iran imported 93 000 tonnes of New Zealand meat. This had displaced the previous annual supply from Australia of approximately 2.4 million live sheep.³⁶ In 1985 it was reported that Iran had bought 132 000 tonnes of New Zealand frozen lamb worth approximately \$US150 million in a barter deal for approximately six million barrels of Iranian oil.³⁷

13.22 It has been argued that the example of Iran demonstrated that demand for 'hot' meat is managed demand, that it is not a product of consumer preference. The AMLC responded that this indicated a high rate of substitution between fresh meat and frozen or chilled meat.³⁸ However:

'This has been imposed on the people by the government through the Iranian meat organization, which has total control through the GTC, of imports.'³⁹

13.23 Various reasons have been proffered for the Iranian decision. It has been suggested that live sheep imports had been terminated in order to ensure the purity of the national flock⁴⁰ but this was rejected by the AMLC.⁴¹

13.24 It was also suggested that the decision was made because of the closure of loading ports, the shortage of foreign exchange and the purchase of military supplies for the Iran-Iraq war. The ALEA regarded it as a 'totally economic' decision made because of lack of funds as a result of the war with Iraq.⁴² The BAE regarded it as a 'very conscious' decision to purchase the cheaper product, that is, frozen lamb, because of their 'very severe economic plight'.⁴³ The AMLC believed that problems with handling facilities was a contributing factor. Bandar Abbas did not have the facilities which the main port of Bandar Khomeini used to have prior to its closure. The Sheepmeat

Council agreed that it was largely because of the war and problems with one port but added that the Iranians had indicated quite definitely that they did not want carcass mutton; they had replaced live sheep with chicken and New Zealand lamb.⁴⁴

Promotion and Marketing of Sheepmeat in the Middle East

13.25 If demand were managed, as alleged by the AMIEU, it would be futile to promote refrigerated sheepmeat in the Middle East. The investment that Middle Eastern companies have in live sheep carriers, feedlots and other facilities would probably preclude the substitution of refrigerated sheepmeat trade for the live sheep trade as it would not be in their interests to convert their facilities to a new trade.

13.26 The AMIEU claimed that the two million live sheep exported to Kuwait would constitute a mutton carcass trade of 45 000 tonnes. The actual carcass export to Kuwait was approximately 700 tonnes of mutton and a similar amount of lamb. It claimed that Australia was servicing the small expatriate market; it was not selling sheep meat to the expatriate market which was being supplied with beef from India and poultry.⁴⁵

13.27 In December 1981 the Minister for Primary Industry and the President of the Australian Council of Trade Unions (ACTU) agreed on three requirements to resolve the industrial dispute over the live sheep trade. One of these was a fund to finance promotion of carcass sheepmeat in the Middle East.⁴⁶

13.28 The 1982 Mission returned from the Middle East and recommended:

'That the Australian Government consult with interested industry bodies on the establishment of funding arrangements for a positive program of development and expansion of markets for Australian hogget and mutton in the countries importing Australian live sheep.'

and:

'That the Australian Government provide financial support for the sheepmeat market development program.'⁴⁷

13.29 The Commonwealth Government offered to contribute \$1 million per annum for three years on a dollar for dollar basis with the industry for a market promotion fund. Producers, through their slaughter levy subscriptions to the AMLC, were to supply \$150 000 per annum. The Minister suggested that if the AMIEU levy its members \$4 per head it would raise \$152 000. However, the AMIEU required several assurances from the Government before it was prepared to contribute. It was concerned at the problem in several Middle Eastern countries of the use of barriers to entry, or non-tariff trade barriers, against the importation of Australian carcass sheepmeat. It required the Government to take a firm stand before contributing:

'The Government must get to the root cause of the problem in some countries and that requires full Government-to-Government negotiations and dealings to reduce barriers against carcass meats.

The AMIEU is not prepared to look at contributing to the suggested \$4 per head unless there are guarantees of access to some of these markets for carcass meats.'⁴⁸

Advisory Committee to the AMLC for Market Development and Promotion of Sheepmeats

13.30 In August 1982 the Minister for Primary Industry announced the establishment of a special market development fund to promote sheepmeat carcass trade, especially to the Middle East. An advisory committee was established to advise AMLC on appropriate market development projects to be financed from the fund.⁴⁹

13.31 The fund was financed by a two cent increase in the slaughter levy for sheep and lambs and a matching dollar for dollar contribution by the Federal Government over a three year period.

13.32 At the inaugural meeting of the advisory committee in November 1982, it was agreed that priority was to be given to the Middle Eastern market, but promotion of all sheepmeats and not just mutton, to all markets, including the Australian domestic market, was to be adopted.

13.33 Since 1982 \$1.4 million has been spent on 28 projects.⁵⁰ The advisory committee has initiated a number of projects for market development and promotions in the Middle East:

- . The underwriting, if necessary, of the cost of a trial shipment of a container of chilled lamb and mutton in a CO₂ modified atmosphere to the United Arab Emirates (UAE).
- . Part of the expenses of a BAE research project into 'Competition between Australia and New Zealand in the Middle East sheep meat market'.
- . Promotion of frozen and chilled sheepmeats including mutton and vacuum packed products at 'Saudifood 1983', Riyadh.
- . The advisory committee endorsed the production of a documentary film by AMLC staff entitled, 'Islam in Australia' in order to demonstrate that Islamic requirements were satisfied at Australian abattoirs. Film Australia prepared a script which was reviewed by the advisory committee, AMLC, EIS and AFIC and was

circulated for final approval to all halal certifying bodies in Australia. It is to be used as an adjunct to future promotion campaigns in the Middle East.

- . Intergraphics, a Middle Eastern advertising agency, conducted an advertising campaign from December 1983 to May 1984 in Saudi Arabia, Kuwait, Bahrain, Qatar, Dubai, UAE and Oman with use of television and magazines. The AMLC reported that the campaign had been effective in maintaining consumer awareness. Mutton exports were maintained although lamb exports decreased.

- . There are severe restrictions on the transport of chilled products by sea to Middle Eastern markets. Trial shipments using vacuum packaging met the approval of Kuwaiti authorities who agreed to extend the entry period for chilled meat to 45 days, only for trial purposes, in order to evaluate the transport of chilled products by sea.⁵¹

The AMLC stated that a part of the charter of the 'two cent' committee was to find markets for mutton as an alternative to live sheep. 'Getting acceptance of this has been most difficult. They wanted lamb and we were more interested in sending mutton than lamb.'⁵²

Difficulties of Sheepmeat Promotion

13.34 Setting aside the question of barriers to entry in Middle Eastern markets, it is apparent that there are difficulties with the promotion and marketing of sheepmeat in the Middle East.

13.35 There have been problems with product certification including absence of date stamping on export certificates, absence of results of immunological tests, inadequate shelf-life dates for canned meats and non-declaration of ingredients devoid of pig by-products.⁵³

13.36 The 1982 Mission noted that:

'Regulations imposing restricted entry period and shelf life for chilled and frozen meat are likely to limit the expansion of Australia's meat exports to some countries. Other local health regulations which prohibit the sale of frozen meat alongside fresh, the freezing of chilled meat and the thawing of frozen meat place limitations on the ability to promote demand for imported meat. The technical justification for these requirements could be questionable.'⁵⁴

The 1982 Mission recommended:

'That the Australian Government and AMLC ensure Islamic slaughter procedures in Australia are properly followed and certified as required by importing countries.'⁵⁵

13.37 The meat substitution issue which has received considerable media attention in the Middle East. Testing procedures in the Middle East may have been stepped up as a response to concern about Australian export controls, with the result that Australian meat exports may suffer an increased rejection rate in the Middle East.⁵⁶

13.38 Packaging is an important aspect of marketing and it is apparent that packaging of Australian meat could be improved. The 1982 Mission noted that 'the packaging of Australian meat at retail level should be improved to match competing countries' product presentation'.⁵⁷

13.39 There is the uncertainty of industrial stoppages in Australia. The 1982 Mission noted:

'Concern was expressed in certain markets about Australia's unreliability as a trading partner due to industrial disputation. On pursuing this question not all delays could be substantiated as due to this cause.'⁵⁸

13.40 There are considerable difficulties for western commercial agencies in the Middle East arising from language problems. Paxton noted that because of this problem information could be unreliable and that training in Arabic language and culture was essential for trade attache postings.⁵⁹ In 1980 the Department of Trade did not have one officer that could read Arabic. By 1982 they had engaged one officer in the Middle East section who was proficient in Arabic and could vet formal trade documents.⁶⁰

New Sheepmeat Marketing Developments

13.41 The 1982 Mission spent four weeks studying the markets for Australian sheepmeat and live sheep in Saudi Arabia, Libya, Kuwait, Bahrain, Dubai and Abu Dhabi. This was the first concentrated effort to assess market conditions in the Middle East. The AMLC and the Trade Commissioner Service have provided the only public source of information on Middle Eastern markets. The Committee noted comments made by Mr. Peter Wood, Head of the Bahrain office of the AMLC, who said, at the first annual general meeting of the Corporation in Sydney in May 1985, that the live sheep trade might not be maintained, that it had probably peaked with little likelihood of any further expansion. He predicted that the super carriers would be superseded by smaller ships transporting better quality sheep. This would correspond with an increase in carcass imports. This presented Australia with good opportunities for marketing sheepmeat but domestic meat processing productivity would need to be increased if it was to retain its share.⁶¹

13.42 There is other evidence for market opportunities in the Middle East. Mr Jassim Al Wazzan, the principal of a large Kuwait food importing company, completed an inspection of halal slaughter provisions in Australian abattoirs in April/May 1985. He commented that he was 'very happy and satisfied that animals are being slaughtered in accordance with our Islamic needs. The Australian industry has come to understand our requirements'.⁶² He indicated that shipments of lamb and mutton with some specialty meats would resume⁶³ as soon as two representatives could be appointed to oversee the halal slaughter of all meat exported to Kuwait.⁶⁴

13.43 There has been some criticism in the rural media of the performance of the AMLC in developing new markets in the Middle East for refrigerated sheepmeat.⁶⁵

13.44 Mr Arthur Brackenrig, Chairman of the Mudgee Cooperative Meat Supply, claimed that lamb exports were being held back by the traditional Australian practice of turning off high cost lambs dressing 15-20 kg. He said they should market lambs at 8-13 kg. These lambs should be marketed entire without the producer having to incur the costs of marking, drenching and feeding to get them to the higher bodyweights. Producers would have little to lose because if they were not accepted at low bodyweights producers could simply retain them and market them at heavier bodyweights. If they were turned off at 10 to 12 weeks management would be improved and costs reduced.

13.45 The AMLC gave evidence that it had been trying to promote chilled lamb and mutton, but believed it would be a long-term programme.⁶⁶

13.46 There is potential competition from New Zealand in marketing refrigerated sheepmeat in the Middle East. The AMLC reported that New Zealand has recommenced the export of chilled lamb to the Middle East. Small consignments of high quality

carcase under 12 kg are freighted to Saudi Arabia, Bahrain and the UAE at commercial, premium prices. However, the freight rate is high and capacity at both ends is limited.⁶⁷

13.47 Future exports of sheepmeat to the Middle East may benefit from a reported decision, taken by Australian and New Zealand authorities in March 1985, to co-operate more closely on market development and sales ventures. The marketing advisers of the two meat authorities have identified six markets that require immediate examination, including Iran and Iraq.⁶⁸

Competing Suppliers of Sheepmeat to the Middle East

13.48 Alternative sources of supply of sheep to the Middle East from countries other than Australia are an important consideration as it has been argued by the AMIEU that it is possible for Australia to impose a live/carcase ratio on Middle Eastern buyers with the consequence that the reduction in the export of live sheep would be matched by an increase in the supply of carcase mutton.⁶⁹ The counter argument is that Australian frozen mutton would be displaced by New Zealand frozen lamb and other cheaper meats from the EEC, South America and China.⁷⁰ In addition, Australian live sheep would be replaced by live sheep from other sources such as Eastern Europe, Turkey, South America and China.⁷¹ The response of the AMIEU was that Middle Eastern companies would not lay up the millions of dollars invested in sheep carriers that also carry adequate reefer space for the transport of refrigerated sheepmeat and forego the purchase of possibly half of their live sheep requirement.⁷² The AMIEU stated that:

'There really is not a genuine competitor ...
No country can be justified as resembling a
genuine threat to us as a supplier of mutton
on that market.'⁷³

These comments were corroborated by the Senior Australian Trade Commissioner in Bahrain who stated:

'Australia is really the only country in a position to supply live sheep in the volume required by the Middle East market.'⁷⁴

13.49 In evidence before the Committee, Elders IXL deferred to the AMLC evidence of import of sheep from various other sources with the qualification that the recent extreme drought in North Africa may have distorted the pattern of trade.⁷⁵

13.50 Another industry source commented that Australia was in an 'excellent position' to compete with other countries. The super carriers with cargoes of 100 000 or more sheep were limited as to where they could load and unload their live cargo.

13.51 The BAE advised the Committee that alternative suppliers of live sheep to the Middle East market constitute approximately 50 per cent of the total. The principal countries involved are Turkey, Romania, Somalia and Sudan. The last two countries have experienced severe droughts and have been turning off excess livestock.⁷⁶ Statistical tables for the main components of the international trade including sheep population by country are given in Appendix III.

13.52 The validity of claims of competing supply are examined on a region by region basis.

Current and Potential Suppliers by Region

Eastern Europe

13.53 Bulgaria, Romania, Poland and Hungary are subject to harsh seasonal conditions that restrict sheep breeding capacity. All four countries export sheep, but only Bulgaria and Romania currently export to the Middle East. At times these two countries have urgently required foreign currency and have virtually dumped sheep in the Middle East.⁷⁷ In 1985 SLTT

imported 70 000 sheep from Romania on its own vessel and 15 000 from Bulgaria and 'intend to do this more'.⁷⁸ Eastern Europe has started resupplying Iran, transporting sheep across the Black Sea and down from the port of Trabzon in northern Turkey.⁷⁹ There is also evidence that in the past five or six years Romania has been importing joined Australian ewes and re-exporting the unmarked lambs to the Middle East for the Haj.⁸⁰

Turkey

13.54 Turkey is the second largest supplier of live sheep to the Middle East. Its flock has increased in size; its sheep are fat tails, which are the preferred type and it is close to the major Middle Eastern markets. A winter ban on export has just been lifted.⁸¹

Suppliers within the Middle East Region

13.55 Although Egypt, Syria and Jordan have exported sheep to other Middle Eastern destinations and Kuwait has trans-shipped a large number, export is constrained by increasing domestic consumption and limits on production because of rudimentary management and severe climatic conditions. However, Syria is a major supplier of the 'up market' fat tail ram.⁸²

Afghanistan, Pakistan, India

13.56 Afghanistan supplies a limited number of sheep to the Kuwait market.⁸³ India has a large sheep flock, but in 1981 the Government imposed a ceiling of 50 000 on the export of live sheep. The UAE are 'totally and completely' supplied from India by dhows and larger ships. India also supplies Oman and Australia is left with a residual share of the market.⁸⁴

Pakistan has exported a few sheep to the Middle East. All three countries are close to the market but increasing domestic demand is limiting their capacity to export sheep to the Middle East.⁸⁵

North Africa

13.57 Somalia, Sudan and Ethiopia have been the traditional sources of supply for Saudi Arabia and the pilgrim market. They are close to the Middle Eastern markets, they have supplied a large number of sheep and they have fat tail sheep, the preferred product. However, production is limited by harsh climatic conditions and subsistence levels of flock management. The unrelieved years of drought and civil war have initially led to large exports but future exports may be curtailed. The AMIEU commented that sheep have been carried across the Red Sea by dhow from North Africa for 1400 years because Arabia, owing to the severity of its climate and restricted resources, has never been able to maintain enough sheep for domestic consumption. 'The North Africans, if they have the numbers, have a proximity to the market which would wipe us out overnight.'⁸⁶

China

13.58 The ALEA informed the Committee that trial shipments of live fat tail sheep from China began in January 1985.⁸⁷ China has the potential to become a serious competitor as the size of its sheep industry is comparable to that of Australia. However, there are reports of meat rationing within China and export could be constrained by domestic demand.⁸⁸ The price paid for Chinese fat tails is only marginally more than that paid for Australian wethers, particularly in Kuwait.⁸⁹

South America

13.59 Uruguay and Argentina have exported small numbers of sheep to the Middle East and KLTT has considered establishing an export trade from Brazil. The Senior Australian Trade Commissioner in Bahrain commented that, from November to May, live sheep can be exported from Montevideo or Buenos Aires, but exports outside this season suffer prohibitive mortalities.⁹⁰ The AMLC was of the opinion that Uruguay and Brazil may have some future potential⁹¹ but would be disadvantaged by intermittent supply and high mortalities.⁹² The AMIEU added that the Brazilian flock was too small and the sheep type was not suited to the trade. In addition, the voyage to the Middle East is longer and the loading facilities had not been developed. However, the SLTT stated that:

'We are always bombarded by companies from Argentina and Uruguay asking us to come and import sheep from there. Right now the total cost of the South American sheep might not be competitive in comparison with Australian sheep, but if partial cuts or ratios of carcass-to-live sheep are imposed it might make the South American sheep more competitive than they are right now.'⁹³

South Africa

13.60 In the early 1970s, South Africa exported approximately 30 000 head per annum, but exports have now declined to insignificant levels. Saudi Arabia maintains a trade embargo with the Republic. With a national flock of only approximately 30 million, the prospects for South African exports to the Middle East appear remote.⁹⁴

New Zealand

13.61 New Zealand sent two consignments to the Middle East in 1974 but this was terminated by the Government, partly on the grounds of high mortalities of four per cent and partly from trade union representation. The New Zealand Meat Producers Board has increased its pressure on the Government to resume exports and there are reports that Saudi Arabia and New Zealand representatives have met to discuss the possibility of re-entry.⁹⁵ However, there is considerable trade union opposition to the move. The major problems to be resolved are government legislation, high freight rates, a limited supply of suitable sheep,⁹⁶ seasonal irregularity of supply and investment infrastructure.⁹⁷

CHAPTER 14

THE DEVELOPMENT OF A FAT TAIL SHEEP EXPORT INDUSTRY

14.1 The Committee considered the development of fat tail sheep for export because it considered that developments with ramifications for animal welfare should be subjected to public scrutiny. As Ms Townend commented:

'before the live export of sheep commenced, the issue was never publicly debated; it was not discussed in Parliament in a way that allowed the public to assess the situation and decide on the issues involved, and no forethought or planning was put into considering what the implications of a live export trade might be.'¹

14.2 The most important future development was perceived as the importation of fat tail sheep to Australia and the establishment of a fat tail Merino cross-breed live sheep trade.

The Establishment of a Fat Tail Cross-Breed Industry

14.3 The importation of Middle Eastern fat tail breeds of sheep, such as the Barbary, the Nadji, the Awassi, the Shafali, the Naoami and the Karakul, were initiated by Dr John Lightfoot, Chief of the Division of Animal Production, Western Australian Department of Agriculture, and Associate Professor Euan Roberts of the School of Wool and Pastoral Sciences, University of New South Wales, with the assistance of annual research funding from the AMRC. Three Karakul rams and three Karakul ewes were moved from the Cocos Island Quarantine Station to the Torrens Island Quarantine Station in South Australia in April 1985.² These sheep will be kept at the quarantine station for fear of the

spread of the ovine disease scrapie, but after three years, semen and embryos from Karakul progeny may be available for commercial release. In April 1985 Dr Lightfoot collected embryos of three breeds of fat tail sheep in Cyprus. These embryos were to be deep frozen and taken to the Cocos Island Quarantine Station for implantation in Australian sheep.

14.4 The second phase of the research project involved the cross-breeding of fat tail and Australian breeds of sheep in order to investigate carcass quality and consumer acceptability. By December 1984 a shipment of 299 Poll Dorset ewes had arrived in Bahrain for an improvement programme developed by Badam Agriculture, a company owned by Sheik Rashid, a relative of the Emir of Bahrain.³ The ewes were selected from properties in New South Wales, Victoria, South Australia and Tasmania with the help of a past president of the Australian Poll Dorset Association, Mr Les Binns.⁴

14.5 The goal of this research programme was to assess the possibility of developing a fat tail industry in Australia for both live and carcass export to the Middle East. Dr Lightfoot estimated the potential market at two million sheep per year, which, it was claimed, would mean an extra \$100 million per year in export income. Professor Roberts claimed that fat tail sheep had the meat preferred by Middle East consumers. The claimed difference in flavour was attributed to the deposition of fat in the tail and a different fat distribution in the carcass.⁵ It is reported that one of the major Western Australian live sheep exporters had indicated that they would be prepared to pay a premium for Karakul cross wethers.⁶

14.6 The initiatives of Dr Lightfoot were supported by the Sheepmeat Council of Australia at a Council meeting in Perth in May 1984 and by Western Australia farm organisations,⁷ but they encountered considerable opposition from the Wool Council

of Australia, the Australian Association of Stud Merino Breeders and the NSW Live Stock and Grain Producers Association,⁸ who have advanced several objections.

14.7 The ALEA was approached by the Western Australian Government about the project. It supported the proposed trials but made no further commitments at that stage.

Objections to the Proposed Industry

14.8 Opponents of the fat tail sheep project have several objections to its development. There is the possible threat of the importation of exotic disease. Dr David Franklin of the ALEA commented that:

'there is a potential for a transfer of a disease under any circumstance. However, I believe the Australian Department of Health and its quarantine officers have looked at the matter quite seriously. The Department may not even allow those sheep into the country ... it would be on the basis of either not knowing enough about the endemic disease status for the origin of these sheep, or on the basis of being concerned about some of the endemic diseases that are there.'⁹

14.9 Dr Lightfoot argued that risk of disease was eliminated by:

- . careful initial selection of the sheep;
- . strict quarantine procedures;
- . rigorous diagnostic testing; and,
- . modern reproductive technology.¹⁰

14.10 There is also the possibility of fibre contamination. Mr John Barr, Queensland member of the Wool Council of Australia stated that:

'Nobody could give us an assurance that crossbreeding fat tail sheep with Merinos would not lead to the proliferation of coloured fibres in sections of the Australian Merino clip. The Australian Merino clip is the only clip in the world that does not have an inbred black fibre problem and it would be a tragedy to introduce it accidentally.'¹¹

14.11 The Western Australian Department of Agriculture responded:

'The proposal to use the fat tailed rams as terminal sires would mean that those progeny will be the product that will be exported and we already have sheep with black fibres in Australia and they do not cause any problem.'¹²

14.12 It is probable that the progeny would be exported without being shorn,¹³ but the problem of black fibre still applies to the breeding livestock retained in Australia. The example of pigmented fibre in Suffolk sheep has been cited. That problem is significant enough for Professor Roberts' own School of Wool and Pastoral Sciences to have devoted research funds to the breeding of all-white Suffolks. Dr Lightfoot has claimed that the wool from purchased fat tails is of 'classical carpet type' and would find a ready market in the Australian carpet wool industry.¹⁴

14.13 Management of fat tails has wider implications. The ALEA gave evidence that 'if the animal scours at all, you are going to have a fly strike problem'.¹⁵ This was confirmed by the ACLA which commented that new management techniques would be needed which would have animal welfare considerations.¹⁶

14.14 Management is also probably labour intensive. Mr Les Binns commented that:

'Young rams need to be trained in the difficult art of serving a fat tailed ewe and lambing problems occur with high frequency. Australian breeders cannot afford the time nor effort to carry out such intensive husbandry.'¹⁷

14.15 The suitability of the breed to the Australian environment is another welfare consideration. The ALEA believed that 'There would be only limited areas where the fat tails would be able to be held', that is, the drier areas of western New South Wales, South Australia and Western Australia.¹⁸

14.16 Mr Ron Collins, President of the Australian Association of Stud Merino Breeders described the economic benefits of the development of a fat-tail sheep industry in Australia as 'unclear'.¹⁹ Mr Neville Gorman, President of the Wool Council of Australia commented that Australia already had enough sheep to satisfy the Middle East market.²⁰ Mr Peter Taylor of the N.S.W. Livestock and Grain Producers Association said that fat tails, if imported, had 'the potential to harm the present overseas trade for live wethers',²¹ although it is possible that fat tail cross-bred sheep would constitute a different market sector in the Middle East.²² Dr John Lightfoot argued that extensive market research would be needed to determine if a market for fat tail cross-bred sheep did exist in the Middle East.²³

14.17 Consumer preference in the Middle East for fat tail meat is uncertain. Professor Roberts claims their meat is preferred, that the physiological mechanism which deposits fat in the tail may give the breed a totally different carcass fat distribution and account for the distinctive 'flavour' of fat tailed sheep meats.²⁴ It is reported that Middle Eastern

consumers object to the smell of the cooking of Australian sheep meat, which Professor Roberts believes may be related to the distribution of fat. He also cites consumer preference testing in the United States in 1984 which demonstrated that consumers easily distinguished between meat from Karakul and Suffolk cross lambs.²⁵

14.18 Mr Les Binns, who witnessed breeding trials at the animal production unit of the Bahrain Government Department of Agriculture, claimed that although the sheep carried a large percentage of fat in the tail area there was still 'a fairly high level of fat in the well-conditioned, young sheep and a high level of fat deposited throughout the carcass of a well-conditioned, older sheep'.²⁶ He also commented that:

'The meat from a purebred fat tailed sheep has the same flavour as an Australian Merino wether if given the same feedlot or grazing conditions. The diet recommended to give the meat flavour desired in Saudi Arabia was barley, molasses and dates.'²⁷

14.19 The Committee has noted developments in the fat tail sheep project. There are important considerations of animal husbandry and welfare involved. In addition, the manner of the continuation of the live sheep trade must be considered. It will be necessary for government authorities and the various industry organisations to monitor very closely developments in this area.

CHAPTER 15

RESEARCH

15.1 In a large number of submissions to the Committee there has been a recognition of the need for continuing and further research into the trade.

15.2 The Victorian Department of Agriculture indicated that, in the late 1970s, exporters were reluctant to participate in government research, preferring to do research within their individual companies, but recently they have become more amenable to university and government research.¹ The Brennan report commented that the exporters' reluctance was due to their concern that the results derived from the use of their facilities might confer a commercial advantage on their competitors.² This was confirmed by a number of other sources, including the AAHQs which added that the industry was also apprehensive of the exposure of deficiencies.³

15.3 Dr Batey of the ALTV told the Committee that between 1977 and 1980, while on the staff of Murdoch University, he received funding from the Reserve Bank to investigate mortalities in the live sheep export trade. He had some difficulty in 'getting the co-operation of certain sections of the industry ... it highlights the need for any research project to be a co-operative one. I think it needs to be one which involves the industry as well as the research institution.'⁴ Dr Batey believed the industry attitude had changed, that the industry has become more aware of its problems, possibly because of external pressure. Dr Franklin of the ALTV added that industry attitude had changed 'dramatically', as demonstrated by

the formation of the ALEIAC and its adoption of research priorities.⁵ Dr Arnold of the ALTV advanced the reason for the increase in co-operation as being the fact that profitability was down:

'The research must help them be commercially sound, otherwise they will not be here.'⁶

15.4 The ALEA told the Committee that:

'A majority of the research has been done within the company itself, as opposed to co-ordinated multi company research. Most of the research really is a matter of trials where there is a new product out, or you are trialling a new pellet.'⁷

15.5 The AMLC added that it must be recognised that the bulk of the research has been done by exporters and this is demonstrated in the bibliography in the Brennan Report. 'Austiran originally and certainly the companies today have put a lot of effort and cost into research programs.'⁸ The AAHQs commented that without the participation of the industry, major research projects would be 'useless'.⁹

15.6 The Brennan Report also stated that exporters had adapted new husbandry techniques for shipboard operations as a result of 'trial and error' rather than scientific experimentation.¹⁰ The ALEA agreed with this assessment.¹¹

15.7 State Government authorities have not had the resources to do much research into the live sheep export trade. It has been argued that those that benefit most from research should pay for it. There is an export levy on live sheep, part of which is allocated to research. Up to the end of 1984, \$1.26 million has been generated by research levies, which has been matched dollar for dollar by the Commonwealth through the AMRC. The

research levy was originally 3.33 cents per head for sheep and lambs out of a total levy of 71.73 cents per head for sheep and 81.73 cents for lambs. It was increased to 5 cents as from 1 September 1984.¹² The AMLC advised that in 1984 at a meeting of the ALEIAC, the ALEA submitted its own research programme in which it offered some of its own research funding. This was perceived as a genuine desire to be involved in funding or research and to help direct that research.¹³

15.8 The ALEA believed that the ALEIAC should have all research and research priorities referred to it. It should also be the body through which general funding capacity could be, if not directed, at least commented upon.¹⁴ At present the ALEA is not represented on the body which disburses funds, the AMRC, or its advisory committee. It told the Committee:

'We are paying into funds which the Government is then matching, and yet we have no say in the priorities that we want those funds used for.'¹⁵

Table 15.1: Livestock Export Charge Collections for Research

Year Ended June	Sheep and Lambs	Total All Livestock
	\$	\$
1979	84 409	97 720
1980	198 428	209 913
1981	179 644	212 762
1982	201 082	228 425
1983	229 851	263 876
TOTAL	893 414	1 012 696

Source: AMRC Annual Report 1982-83

15.9 The AMRC has been replaced by the AMLRDC. On 2 July 1985, the Minister for Primary Industry, Mr John Kerin announced the appointment of the eight members of the new Corporation. He commented that this finalised the reorganisation of meat and livestock industry research. The AMLRDC was established specifically 'to improve the effectiveness and efficiency of meat and livestock research and development in Australia'.

15.10 The Wool Council of Australia recommended that:

'Industry and government funds be directed to research on priority issues in the livestock export trade, with priorities to be determined by the Livestock Export Industry Advisory Committee.'¹⁶

15.11 One industry source believed that the universities, the State Departments of Agriculture and the AAHQs were best equipped to undertake research into aspects of the live sheep trade and that the AMRC should allocate funds.

15.12 The ALEA saw the need for accurate recording systems for the range of data that applied to live sheep exports such as mortalities, live weights and age groupings and had discussed it with the AAHQs to try to design requirements for all sections of the industry.¹⁷ The ALEA believed that AAHQs was the best placed organisation to act as a central clearing house of industry data that could be used for the benefit of the industry.¹⁸

15.13 The question of research priorities and areas of research has attracted considerable attention. The obvious areas of research have been commented upon in the body of the report. Over the last decade several lists of research priorities have been circulated:

- . Perth 1976, Department of Agriculture, Western Australia (Truscott and Wrath 1976)
- . Adelaide 1980, ABAH
- . Adelaide 1981, ABAH
- . Brennan Report ABAH 1984.

15.14 The ALEIAC at its meeting on 29 February 1984 identified the following as important future research areas.

High Priority

- . Determination of the extent and causes of mortality and weight loss on-farm, at assembly, in transport and during shipping.
- . Definition of the nutritional requirements of sheep undergoing export.
- . Investigation of the influences of regional sources of sheep on subsequent performance.

Priority

- . Definition of the benefits of therapeutic substances and feed additives to export sheep.
- . Investigation of assembly area design and management practice.
- . Development of suitable biochemical and physiological parameters of stress.

15.15 The Committee has made a number of recommendations for the conduct of research into various aspects of the trade in this report. Both the industry and governments should ensure that funding is available for this research and other research projects which are being or need to be done.

CHAPTER 16

FUTURE OF THE TRADE

General Conclusions

16.1 The live sheep trade transfers the place of slaughter of six or seven million sheep a year from Australia to the Middle East, which necessitates the transportation of those sheep at least 10 000 kilometres. The AVA and the RSPCA argued, on animal welfare grounds, that livestock should be slaughtered as close as possible to the point of production. There is little doubt that sheep suffer during the journey from an Australian farm to an abattoir in the Middle East. Any form of transport puts stress on livestock. Even if sheep were to adapt to the confined conditions on sheep carriers, they would still undergo stress, or other forms of suffering, during the process of adaptation to those conditions, or under particular adverse conditions encountered on the journey. In addition, the conditions under which sheep are slaughtered in the Middle East do not match the conditions in Australian abattoirs, which have regulations to ensure a higher standard of animal welfare.

16.2 The Committee came to the conclusion that, if a decision were to be made on the future of the trade purely on animal welfare grounds, there is enough evidence to stop the trade. The trade is, in many respects, inimical to good animal welfare, and it is not in the interests of the animal to be transported to the Middle East for slaughter.

16.3 The Committee agreed that the animal welfare aspects of the trade cannot be divorced from economic and other considerations. Consequently, the Committee considered a range

of economic and other factors, some of which were: returns to producers, investment in the trade, international trade considerations, changes in the structure of the Australian flock and the cost to the meat processing industry. After consideration of all factors, the Committee acknowledges the reality of the situation that any short-term cessation or disruption to the trade would cause considerable dislocation both in Australia and in the Middle East. Consequently, the Committee agrees that the trade will continue for some years and insists that significant improvements be made to animal welfare in many areas of the trade as recommended in this report.

16.4 The implementation of reforms will help to reduce but not eliminate stress, suffering and risk during transportation of sheep to the Middle East. Therefore a long-term solution must be sought. The substitution of the refrigerated sheepmeat trade for the live export trade offers such a solution. The Federal Government should promote and encourage the expansion of the refrigerated sheepmeat trade to the Middle East and other countries, with the aim of eventually substituting it for the live sheep trade.

Ban on Export during the Australian Winter

16.5 The Committee considered the suggestion to ban the trade during the three Australian winter months when conditions are at their worst in southern waters, as well as in the Middle East. The Committee did not have, however, any evidence that mortalities in those months were significantly higher than during the rest of the year. The Committee had little evidence that sheep during the three months underwent significant extra stress or suffering. It can only be presumed that conditions are relatively less tolerable under those conditions.

16.6 Although the ban would probably not seriously disrupt the industry at the Australian end, it would probably cause difficulties in the Middle East. The ALEA told the Committee that there is no evidence:

'to suggest that it is such a significant factor as to stop the trade for three months ...¹ You are talking about having to hold, just in the case of Kuwait, in excess of half a million sheep, where there are not the facilities there to do it. There are the facilities there, in one companies facilities alone, to hold over 150 000 sheep. But you are talking about trebling that facility ... You would be straining your resources at the other end.'²

16.7 The Committee does not propose to recommend the imposition of a ban on the trade during the three Australian winter months. If Australian authorities receive evidence that sheep were undergoing severe hardship on a regular basis during these months, they should consider the imposition of a ban.

Reform of Administration, Legislation and Codes of Practice for the Live Sheep Trade

16.8 The Committee considered the framework of regulation of the trade.

16.9 There is already a mix of legislative, regulatory and self-regulatory procedures which apply to the trade.

16.10 At present there are four Commonwealth Acts which have relevance to the trade:

- . Navigation Act 1912;
- . Quarantine Act 1908;
- . Australian Meat and Livestock Corporation Act 1977; and
- . Customs Act 1901

16.11 The Australian Meat and Livestock Corporation Act and the Customs Act have little relevance to the welfare of sheep being exported live to the Middle East. The Navigation Act is the legislative basis for Marine Orders Part 43, which regulates conditions onboard live sheep carriers. The Quarantine Act provides for the examination of sheep by a veterinary officer in the 48 hours before export to certify that they are fit to travel.

16.12 State legislation for the prevention of cruelty to animals also applies to the handling and care of animals until sheep are loaded on to a carrier.

16.13 The codes of practice that apply to the live sheep trade are:

- (a) Standards for the Preparation and Carriage of Sheep by Sea. ABAH, Canberra, 1982.
- (b) Model Code of Practice for the Welfare of Animals
 - . Road Transport of Livestock. ABAH, Canberra, 1983
 - . Rail Transport of Livestock. ABAH, Canberra, 1983
 - . (Draft) Intensive Husbandry of Sheep. Canberra, 1983

16.14 In addition, the Marine Orders Part 43 (Cargo and Cargo Handling - Livestock) of the Commonwealth Navigation (Orders) Regulations set out legally enforceable requirements. However, in some areas, suggestions rather than requirements are made.

16.15 Of the above model codes, the one on intensive husbandry of sheep is in draft form and the other two refer to only one stage of the export process. The most comprehensive code of practice is 'Standards for the preparation and Carriage of Sheep by Sea' which was prepared and published in 1982 as a response to increasing criticism of the live export trade. Another model code of practice, entitled 'Sea Transport of Livestock', is due for release soon for comment. This will replace the 1982 code.

16.16 The Sheepmeat Council of Australia stated in its submission:

'To suggest that the live sheep trade is in need of further regulation is completely rejected.'³

After outlining the existing regulations, it added:

'No further regulations or alteration to the existing regulations are necessary to ensure the welfare of sheep exported live.'⁴

16.17 Most witnesses, however, were not in accord with the views of the Sheepmeat Council. There was a strong view expressed by witnesses throughout the inquiry that the welfare of the sheep needed to be improved. This was acknowledged by the industry itself.

16.18 The ALEA submitted that the following framework would be appropriate:

- '(a) legislation to define the broad principles for man's relationship to animals in his care, plus penal measures where community standards are infringed;
- (b) codes of practice, which may or may not be framed into legislation, to define acceptable and unacceptable standards of

care in greater detail without removing individual responsibility for acts or omissions; and

- (c) panels of experts and laymen to monitor and advise on changing community expectations, the effectiveness of legislative and/or self-regulatory approaches and to recommend changes to legislation and codes of practice.¹⁵

16.19 Although a mix of legislative, regulatory and self-regulatory procedures were generally accepted by witnesses, views differed among witnesses on the nature of that mix and the extent to which the industry should be subjected to government control.

16.20 The Western Australian Government argued against giving legislative backing to codes of practice dealing with the live sheep trade.

16.21 The Victorian Government submitted that the principal legislative basis for the trade, the Commonwealth Quarantine Act (1908) and associated regulations, have as the only requirement that export animals be examined within 48 hours prior to shipment by an authorised veterinarian who will issue the necessary export certificates. The Victorian Government regards it as essential that:

'expansion of the legislation is undertaken to provide authority for veterinary officers acting on behalf of the Commonwealth to take action to correct transport and/or handling practices or procedures which are at variance with accepted standards of animal welfare. Strengthening of Commonwealth legislation to provide adequate powers in this area is seen as an essential priority by the Victorian Government.'¹⁶

16.22 In a public hearing, the Victorian Department of Agriculture told the Committee that it believed the industry should be self-regulating, but that it should also be subject to codes of practice that were legally enforceable.⁷ 'We would like to see a base of legislation established which basically underpins that and enables operatives like ourselves to be able to operate in a better framework than we have in the past.'⁸ In a later document, the Department advocated increased powers for veterinary officers, such as powers of entry and questioning and for the licensing of export operators and their premises.⁹

16.23 This lack of a proper legislative basis for the industry was acknowledged by the Director of the ABAH in evidence to the Committee. He stated:

'The only fragment of legislation of any moment that exists in relation to the export of livestock generally is one regulation in the Quarantine Act, which is administered by the Department of Health. That one regulation states that in the 24 hours (sic, 48 hours) before export all live animals must be examined by a veterinary officer and certified that they are in a satisfactory and healthy state to travel. That is the only bit of legislation that we rest on in our employment of the State services in this final inspection. It means that a certificate must be issued by a government veterinary officer operating under that regulation before the final permit for export will be issued by the Customs department. The ship is not permitted to leave without that bit of documentation. But it is a very slender bit of legislation on which to regulate a whole industry, ...'¹⁰

16.24 Apart from the inadequate legislative base for the trade, which is due probably to the rapid expansion of the trade in the last ten years, there is a lack of co-ordination of the various Federal and State Government authorities involved in the administration of the trade.

16.25 The Victorian Department of Agriculture was asked whether the guidelines and procedures they used were the same as those used in other States. The Chief Quarantine Officer replied that on numerous occasions he had sought regular meetings with the Commonwealth and the States, as the agents who administer the trade:

'Over the last four years I guess we have had two meetings. I would have hoped that they would have been at least yearly so that the operatives in these trades could get together and actually have consultations as to what each other is doing and requiring. I guess two conferences over four years is going some way towards that. But, no, I do not write to Western Australia or South Australia telling them exactly what I require.'¹¹

16.26 It has become apparent to the Committee that substantial differences exist in the inspection procedures in the States. Dr Tweddle confirmed this when he commented that the AAHQ standards were not uniformly supervised or enforced. He added that compliance with the standards occurred only when action was 'demanded' by the authorised veterinarian and that heavy pressure to compromise was 'constantly' put on the authorised veterinarians.¹²

16.27 Dr Dennis Naphine, a Victorian Government Veterinary Officer with responsibility for sheep exports from Portland, stated to the 1984 Annual Conference of the Australian Veterinary Association that veterinary officers needed wider authority in determining the fitness of export sheep for the voyage to the Middle East. The poor supervision and monitoring of conditions aboard vessels which resulted in higher mortalities could be partly attributed to the 'hotchpotch of regulations' which cover the live sheep trade.¹³

16.28 The Director of the then ABAH commented in evidence to the Committee on 4 July 1984:

'Certainly the Bureau is not as effective as it should be or as it would like to be because of the lack of resources. We would like to have more resources to provide people - not to take over the State inspection function, because we truly believe that that is properly a State function - to be able to go out and be alongside the States, to compare processes in one State with another, to advise and liaise with the State.'¹⁴

16.29 In a hearing on 10 April 1985, the Assistant Director, Development and Laboratories, of AAHQs, commenting on the powers of State Quarantine Veterinary Officers, stated:

'They are slenderly based, of course, on that Quarantine Act regulation. There is good argument that we should perhaps be considering the desirability of a livestock export control Act or something like that. I am not talking about it from an animal welfare point of view; I am talking about it from the physical regulation of trade in relation to animal health aspects in the same way as we have an import Quarantine Act.'¹⁵

16.30 Given the size and nature of the trade, the Committee believes that the regulation of the trade must be given a proper legislative basis, so that government officers have the authority not only to carry out their existing functions but also to give directions to the shipper, agent or feedlot management, as appropriate, concerning the health or welfare of sheep, from the point at which they enter the export feedlot to the time they are put in pens onboard a carrier. The Committee considers it appropriate for State officers to continue to act for the Commonwealth, but greater co-ordination and liaison must be taken by AAHQs to ensure that the same standards are applied in all States. Administration of this area of the trade by AAHQs has left much to be desired.

16.31 The Committee considered but rejected the proposition that the trade should be self-regulatory. The nature of the trade and the evidence of non-adherence to current standards militates against self-regulation.

16.32 The Committee also believes that the code of practice for livestock exports should be given legislative backing in that it be admissible as evidence in a court of law. Such a provision is already included in animal welfare legislation in Victoria. This procedure would provide a quarantine veterinary officer with authority to give directions in accordance with the code of practice as well as giving the officer the flexibility to use professional judgement should special circumstances occur.

16.33 The Committee RECOMMENDS that federal legislation be enacted to give AAHQs responsibility for the health and welfare of sheep from arrival at an export feedlot to loading onboard a carrier. Under this legislation and where necessary in consultation with the industry, AAHQs be required to, apart from the continuation of its present functions:

- (i) receive, collate and analyse statistics and other information in relation to transport of sheep to the feedlot, sheep in the feedlot, transport of sheep to the carrier and transport of sheep to the Middle East; and
- (ii) ensure the maintenance of proper standards of health and welfare of sheep, as set out in legislation, regulations or codes of practice, from arrival at an export feedlot to loading onboard a carrier; and
- (iii) to conduct research or arrange for research to be done into aspects of the live sheep export trade.

16.34 Under this legislation, it is envisaged that quarantine veterinary officers, apart from present functions, would ensure the health and welfare of sheep from the time of arrival at an export feedlot to loading onboard a carrier, and should have the authority to issue directions for the health and welfare of the sheep. The shipper, agent or feedlot management would be required to designate a senior person to liaise with the quarantine veterinary officer, to ensure that directions given by quarantine veterinary officers were carried out.

16.35 Other requirements, not included in this legislation, the Regulations under the Quarantine Act and Marine Orders Part 43, should be incorporated into a code of practice. Failure to adhere to the code would be grounds for revocation, suspension or non-renewal of export licences or export feedlot licences.

G. GEORGES
Chairman

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APPENDIX 1

LIST OF WITNESSES WHO APPEARED BEFORE THE COMMITTEE

Alden, Mr R.B., Member, Australian Council of Livestock Agents,
Melbourne, Victoria

Al-Dukhayyil, Mr A.A., Managing Director, Saudi Livestock
Transport and Trading Co., Riyadh, Saudi Arabia

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Batey, Dr R.G., Member, Association of Livestock Transport
Veterinarians, Perth, Western Australia

Beeby, Mr L.D., Manager, Livestock Services Section, Australian
Meat and Livestock Corporation, Sydney, New South Wales

Blandford, Mr P.B., President, Sheepmeat Council of Australia,
Canberra, Australian Capital Territory

Bos, Dr A., Research Officer, National Farmers Federation,
Canberra, Australian Capital Territory

Bowden, Mr W.D., Manager, Livestock Export and Transit, Elders
IXL Limited, Adelaide, South Australia

Brownlie, Mr L.E., Director, Technical Services, Australian Meat
and Livestock Corporation, Sydney, New South Wales

Burton, Mr V.C., Livestock Export Manager, Metro Meat Ltd,
Adelaide, South Australia

Campbell, Mr P.H., Veterinary Officer, Tasmanian Department of
Agriculture, Hobart, Tasmania

Clark, Mr A.R., Principal Livestock Officer, Grazing Industries,
NSW Department of Agriculture, Sydney, New South Wales

Crone, Mr W.P., Senior Assistant Secretary, Ship Safety Branch,
Department of Transport, Canberra, Australian Capital
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Davis, Mr E.J., Principal Livestock Officer (Regulatory), NSW
Department of Agriculture, Sydney, New South Wales

Davis, Mr I.G.R., Acting Assistant Director, Livestock Services
Branch, Australian Agricultural Health and Quarantine
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Dixon, Mr B.R., Chairman, Sale by Description Committee,
Australian Council of Livestock Agents, Melbourne, Victoria,
and Executive Director - Livestock, Elders IXL Limited,
Pastoral Group, Adelaide, South Australia

Dobson, Dr K.J., Principal Veterinary Officer, South Australian
Department of Agriculture, Adelaide, South Australia

Donnellan, Mr A.M., Consultant, Australian Livestock Exporters'
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Dransfield, Mr J., Australian Federation of Animal Societies,
Sydney, New South Wales

Earl, Mr L.J., Chairman, Australian Council of Livestock Agents,
Melbourne, Victoria

Elliott, Mr R.R.F., Chief Marine Surveyor, Ship Safety Branch,
Department of Transport, Canberra, Australian Capital
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Fletcher, Mr A.C., Perth, Western Australia

Franklin, Dr D.A., Consultant Veterinarian, Australian Livestock
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Gee, Mr R.W., Acting Director, Australian Agricultural Health
and Quarantine Service, Canberra, Australian Capital
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Gillham, Mr R.J., Veterinary Officer, Tasmanian Department of
Agriculture, Hobart, Tasmania

Griffith, Mr S.J., Director of Marketing Services, NSW
Department of Agriculture, Sydney, New South Wales

Haddleton, Mr. K., Manager, Feedlots and Quality Control, Saudi
Livestock Transport and Trading Co., Riyadh, Saudi Arabia

Harries, Lt Colonel M.J., Secretary, RSPCA South Australia Inc.,
Adelaide, South Australia

Harris, Dr D.G., Principal Veterinary Officer, Disease Control,
Western Australian Department of Agriculture, Perth,
Western Australia

Healy, Mr B.P., Assistant Director, Animal Disease Control, NSW
Department of Agriculture, Sydney, New South Wales

Hindson, Mr N., Assistant Manager, Livestock Division, Elders
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Holland, Mr N.L., Producer Representative, National Farmers
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Hollingsworth, Dr T.C., Member, Association of Livestock
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Hore, Dr D.E., Deputy Director-General, Victorian Department of
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Hughes, Mr C., Senior Livestock Officer, Livestock Services
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James, Mr K.R., Immediate Past President, Sheepmeat Council of
Australia, Canberra, Australian Capital Territory

Johnson, Mr D.S., Director, J.T. Johnson and Son (Trading) Pty
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Jones, Dr T.E., President-Elect, Australian Veterinary
Association Ltd, Sydney, New South Wales

Jones, Mr W., Inspector, RSPCA Tasmania, Hobart, Tasmania

Jordan, Mr R.S., Acting Managing Director, Australian Meat and
Livestock Corporation, Sydney, New South Wales

Kearnan, Mr J.R., Meat and Livestock Supervisor, Saudi Livestock
Transport and Trading Co., Adelaide, South Australia

Kimberley, Mr W.R., Trade Export Manager, RMS Australia
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King, Mr P.A., Chairman, Australian Livestock Exporters'
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Koh, Dr S.H., Senior Veterinary Officer (Quarantine and Export),
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Lazki, Mr M., Australian Federation of Islamic Councils, Sydney,
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