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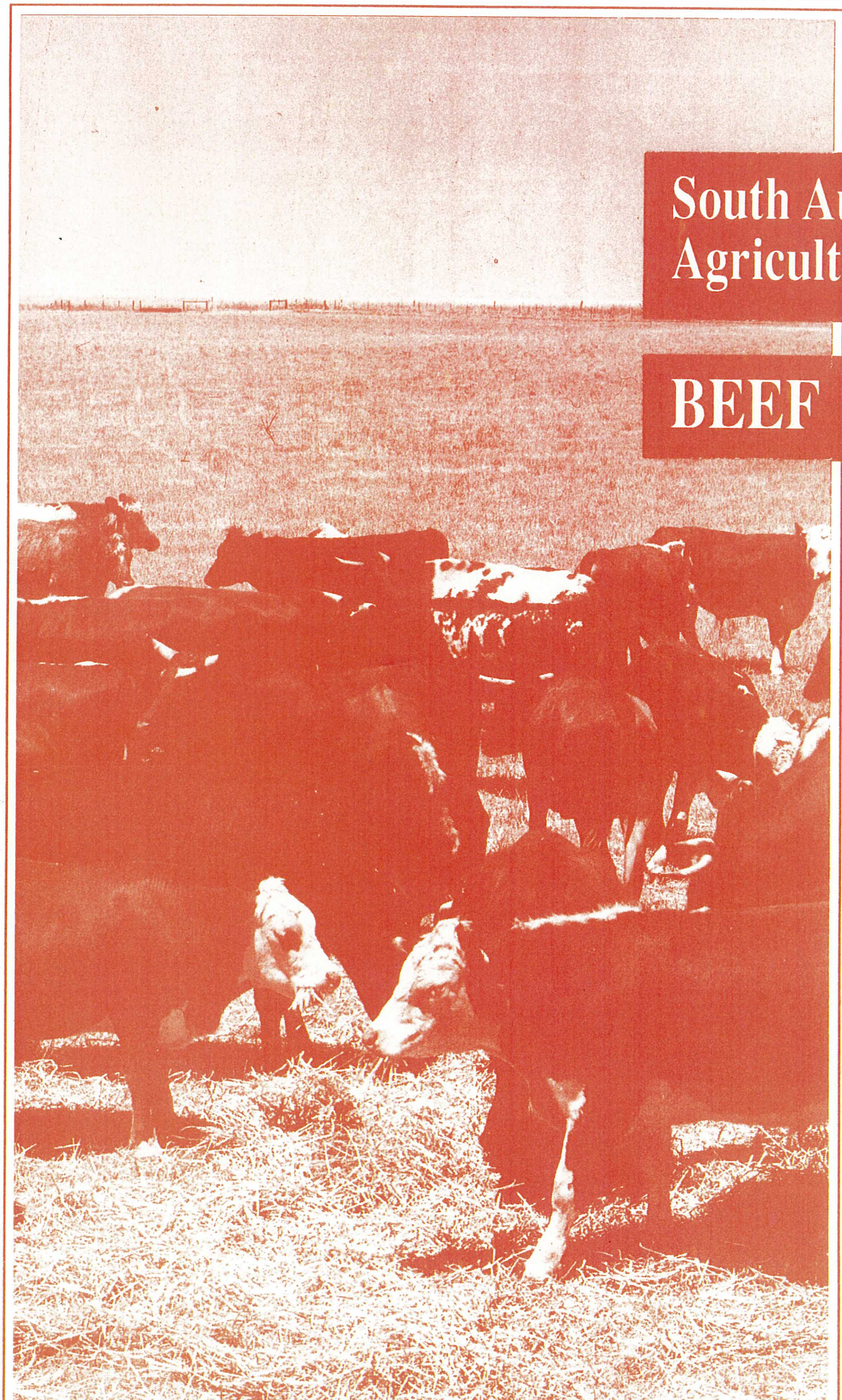

South Australian Agriculture

BEEF

January, 1992

DEPARTMENT OF AGRICULTURE
SOUTH AUSTRALIA

BEEF
COMMODITY PLAN

A Strategic Plan for Maximising the Contributions of the Department of Agriculture to the Beef Industry

FOREWORD

This strategic plan is one of a series which has been developed for the principal South Australian agricultural industries and the services provided by the Department of Agriculture.

Agriculture contributes a greater proportion of returns to the State's economy than that of virtually any other state in Australia. It is therefore important to review the potential for the further development of agriculture in South Australia. These plans have been prepared by the staff of the Department of Agriculture in association with representatives of the respective agricultural industries and farmer organisations. The aim has been to identify the production potential and the market potential for the respective commodities and to thereby evaluate the opportunity which the state has to further develop its agricultural industries. At the same time, consideration has been given to identifying the most important issues to be addressed in the coming years to enable the state to achieve its maximum economic potential from agriculture. These plans will be valuable for determining the future provision of services to the rural community.

I should like to acknowledge the hard work and creative thought which both departmental staff and participants from industry and the farming community have put into the preparation of these plans.

John C. Radcliffe

(John C Radcliffe)
DIRECTOR-GENERAL OF AGRICULTURE

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1. EXECUTIVE SUMMARY

1.1 The Commodity Planning Process

This is the first report of the Beef Commodity Group. It includes an industry statement and a strategic plan for the beef industry. The plan is a strategic plan for the Department of Agriculture as an aid to resource allocation. Considerable industry input has occurred in the production of the plan.

This initial report is part of an ongoing process in planning within the Department. Future plans will be better because of the experience obtained in preparing this plan. Such plans will be more precise and specific.

1.2 Beef Industry Status

The gross value of production by South Australian cattle producers was estimated by Australian Bureau of Statistics (ABS) to be $176m in 1989/90. This figure undervalues the value of the beef industry to the economy as it does not include the value added through processing. This $176m for the beef industry is 45 percent of the gross value of all meat. Fifty percent of the beef gross value is generated in the South East of South Australia and 25 percent in the northern pastoral zone.

Beef cattle numbers in South Australia were 830,221 at March 1990 or 4 percent of the Australian total. This number is about two-thirds the peak number in the mid seventies. In 1989/90 there were 433,000 cattle and 23,500 calves slaughtered in South Australia, with an average carcase weight of 230 kg for cattle and 32 kg for calves.

Most cattle are slaughtered in export abattoirs where the carcase, in whole or in part, can be exported or sold on the domestic market. The carcases, if destined for export, will usually be boned out and packed in cartons for freezing or sent chilled. Traditional retail outlets in Australia are supplied in carcase form but there is an increasing supply of boxed meat to retail outlets.

The production and processing of cattle is regulated to prevent or control diseases and to ensure that meat is processed hygienically for domestic consumption or export.

Cattle production is regulated by four main Acts:-

(1) Stock Diseases Act - control or eradication of infectious diseases and animal identification (tail tag trace back system)

(2) Cattle Compensation Act - compensation for compulsory slaughter or infected animals

(3) Artificial Breeding Act - to regulate and control the artificial breeding of livestock

(4) Brands Act - owner identification of livestock.

Cattle processing, marketing and research funding are regulated through a number of Acts. Other than the Meat Hygiene Act and the South Australian Meat Corporation Act, the Acts are federal Acts.

Major national developments in the beef industry in recent years are:-

- After a long campaign, Australia is provisionally free of brucellosis and will be "impending free" for tuberculosis in 1992.
- The development and adoption of the national performance recording scheme BREEDPLAN.
- The establishment of AUS-MEAT to implement a system of quality control to monitor objective measurement and description of carcasses and meat.
- Computer Aided Livestock Marketing (CALM) has been established by the industry as a computer based marketing system.
- The Australian Meat and Live-stock Research and Development Corporation has made significant changes to the level of industry funds and the direction of such funds in research and development.
- The Australian Meat and Live-stock Corporation has considerably improved the level and quality of meat promotion, both in Australia and overseas.

1.3 Industry Potential

The beef industry is in a decade of opportunity and expansion. It was predicted by Australian Bureau of Agricultural and Resource Economics (ABARE) in February 1991, that Australia's beef production will expand by 20 percent in the next five years. Over the same period the value of exports should grow to $2.7 billion (1990/91$). If ABARE's predictions are correct, the beef industry will soon be Australia's largest rural industry.

The United States has traditionally been Australia's principal export destination for beef. However, with the liberalisation of the beef markets in Japan and the re-opening of Republic of Korea market the importance of the US will decline. It is projected by the ABARE that by 1995/96 Australia's beef exports to Japan and Korea will be 47 percent of the total compared to 37 percent at present.

Australian beef cattle numbers should increase over the next five years from 22.6m in 1990 to a predicted 28.5m in 1996. This is similar to the record numbers of beef cattle in 1976. In South Australian cattle numbers are expected to increase in line with national trends, indicating a state beef herd of 1,050,000 by 1995.

1.4 Constraints and Opportunities

The Commodity Group identified a number of areas which are either constraints or areas of opportunities for the beef industry in South Australia. In summary the areas are:-

- feedback to producers on carcase quality
- slow adoption of technology by abattoirs
- age of major abattoirs in South Australia
- level of industrial strikes
- distance of South Australia from expanding Asian markets
- shortage of direct shipping from South Australia to Japan and Korea
- poor design of transport trucks
- variability of beef tenderness
- feedlotting
- improvements in farm productivity
- potential genetic improvements including new breeds
- animal health limitations on productivity.

1.5 Current Programs/Projects of the Department of Agriculture

The Department has a range of on-going programs/projects in the beef area. These projects/programs are identified, detailed and prioritised in this report. Most of these existing projects/programs were ranked with a high priority given the constraints and opportunities facing the beef industry. Accordingly, the Department of Agriculture is already tackling most of the constraints and opportunities identified by the Group.

1.6 Resources Allocated to the Beef Industry

The Commodity Group experienced difficulty in determining accurately the level of resources (both staff and expenditure) allocated to the beef industry by the Department. This difficulty related to the range of sources of funds (state, trust and income), the lack of detailed records which separated beef from other commodities and also the splitting of funds between programs/projects.

Most of the Department's beef resources in staff were in the animal health area. This largely relates to the Brucellosis and Tuberculosis Eradication Campaign (BTEC). Resources allocated to this are being reduced as it winds down. Accordingly the balance between health and other areas will change.

1.7 Future Directions in Beef

The Beef Commodity Group ranked in order of priority· the opportunities and constraints for future activity by the Department and for other organisations. Many of medium priority and above are already being tackled by existing Departmental projects/programs. Also there are a number of reviews nearing completion (e.g. Strategic Review of the Meat Processing Industry and the review of feedlotting). These reviews will provide guidance for future activities.

1.7.1 Research and the Research Resource

The Department of Agriculture has a major investment in beef research in both land and animals at Struan. The Beef Commodity Group fully supported the continuation of state investment in beef research as long as it is being effectively utilised. The Group did not believe it was being effectively utilised at present. There is a lack of planned future research and there is only 0.3 of an FTE available (excluding farm staff and technical officers) as a resource for such research.

The Group supported the development of better formal industry liaison with Struan. Also the Group noted the preliminary planning for a research project to examine the relevance of EBVs (estimated breeding values) determined in pure breeding for performance of animals in cross breeding. This proposed project was given a high priority for utilising the research resource. However, the number of research staff at Struan needed urgent consideration.

1.7.2 Industry Consultation

The preparation of the Beef Commodity Plan has demonstrated the value of more formal industry input into departmental activities. A major priority of the Department and industry is to determine an appropriate structure for formal interaction between the Department and industry on beef matters.

1.7.3 **Beef Advisers**

The Group supported specialist beef advisers, as opposed to general animal advisers. It was appreciated that the Department had moved to more generalist advisers given reducing resources. However, despite reducing resources it was better to have specialists rather than generalists.

1.7.4 **Beef Resources**

Given the size and potential growth in the beef industry, the Department needs to move resources into the beef industry. A minimum of two full time researchers are required to utilise the Struan beef resources. Only 0.3 are available at present. Also the Department should provide a further specialist beef adviser in the South East in the medium term.

The Group appreciated the fact that the Department is reducing overall resources. However, given the relative importance of beef, compared to other industries, there had been insufficient resources allocated in the past. Also the relative better outlook for beef requires a movement of resource from other areas into beef.

1.7.5 **Marketing**

The Group did not support the Department moving further resources into the marketing area. This was largely industry's responsibility. However, the Department should be aware of market trends and developments when providing advice to farmers and determining future research directions. Also the Department plays an important technical role in market related activities and in the development of new activities.

2. INTRODUCTION

2.1 The Commodity Planning Process

The South Australian Department of Agriculture established a Commodity Group for each of the main agricultural commodities. These Groups were asked to prepare an industry statement and strategic plan for their commodity. This is the Commodity Report for the Beef Commodity Group.

The Beef Commodity Report encompasses the characteristics of beef production and marketing, production and financial statistics, regional features, market segments, regulations governing the industry and aspects of the abattoir and processing sector.

A major aspect of the report is an identification of the future potential of the beef industry, both in Australia and South Australia. Constraints to the achievement of this potential and opportunities for development are identified. Priorities for action by the Department of Agriculture in maximising this potential and achieving further development are identified.

2.2 The Beef Commodity Group

To develop this plan a Beef Commodity Group was established with the following members:-

Chairman - Hadyn Hanna - Principal Officer (Meat)
Executive Officer - Bill Giles - Senior Meat Officer
Economics Representative - Gary Oborne - Principal Officer (Economics)
Research Representative - Mick Deland - Senior Research Officer
Extension Representative - Michael Milne - Senior Beef Adviser
Regulation Representative -
    David Robertson - Principal Veterinary Officer (Meat Hygiene)
CVL & State Chemistry Laboratories Representative - Bill DeSaram -
Marketing and Development Representative - Matt Benson
UF&S Representatives -
    Mike Gaden - Producer
    Richard Neville - Producer
Advisory Board Representative - Mark Greenfield - Producer
Pasture Representative -
    Ron Ellis - Principal Research Officer (Corresponding only)
Pest Plant Commission Representative - Brian Cooke (Corresponding only)

2.3 Role of Beef Commodity Group

The role of the Beef Commodity Group, in the first instance, is to prepare this Report. The Report will be considered by the Department, along with other Commodity Reports, as an aid to determining the allocation of Departmental resources and to determine priorities for obtaining outside funds to assist the Department to provide the most appropriate services to the beef industry.

3. INDUSTRY STATUS REPORT

3.1 Value and Exports

The gross value of production by South Australian cattle producers was estimated by ABS to be $176m in 1989/90. This figure undervalues the value of the beef industry to the economy as it does not include the value added through processing. Such value adding is much more significant in the beef industry than say the wool industry. This $176m for the beef industry is 45 per cent of the gross value of all meat. Fifty per cent of the beef gross value is generated in the South East of South Australia and 25 per cent in the northern pastoral zone. The dairy industry contributes bobby calves, culled cows and crossbred cows to the beef industry. It is estimated that the direct dairy contribution is about 5 per cent of the $176m.

The Australian beef industry exports over 50 percent of its production. The estimated value of exports for 1990/91 is $2.3 billion. This is more than the value of greasy wool exports. Also Australia is the world's largest exporter of beef. In 1990 Australia exported over 70 percent more than the next largest exporter (Brazil).

3.2 Cattle Numbers, Slaughtering and Production

Beef cattle numbers in South Australia were 830,221 at March 1990 or 4 percent of the Australian total. This number is about two-thirds the peak number in the mid seventies. Numbers are increasing and are expected to grow by 2-4 per cent per year for the next few years given the favourable beef outlook.

In 1989-90 there were 433,000 cattle and 23,500 calves slaughtered in South Australia with an average carcase weight of 230 kg for cattle and 32 kg for calves.

3.3 Breeds

About 75 percent of South Australia's beef cattle are pure bred. The main breeds are Herefords (50%), Shorthorns (24%), and Angus (8%). While most breeding cattle are pure bred there has been a marked increase in cross breeding in recent years resulting in an increasing proportion of the turn-off of cattle being crossbred cattle. Important terminal breeds in crossbreeding are Simmental, Charolais and Limousin.

3.4 Herd Size

In South Australia over 33 per cent of agricultural establishments had beef cattle on 31st March 1990. Of these 4,786 establishments with beef, nearly 40 per cent had a beef herd of less than 29 animals and 11 per cent had over 300 animals. The average cattle herd was 173 animals.

3.5 Production Systems

In South Australia there is a wide range of climatic, physical and economic environments and market outlets faced by cattle producers. This has led to a range of production systems servicing a range of markets.

In the pastoral areas of South Australia (north of the dog fence) producers are limited to cattle production. Production is either slaughter stock, mainly for the manufacturing market, or store stock for the more favourable production areas. This area has now recovered from the Brucellosis and Tuberculosis Eradication Campaign which drastically depleted stock numbers in the 1980's.

In the more favourable agricultural areas there are opportunities to undertake a range of production systems for a range of markets. Competing with this is competition from other enterprises for resources. In this situation there is an increase in the number of production options available and an increase in the complexity of the system and its management.

Producers in the southern area, particularly the South East, can choose from fattening stores to breeding and fattening or any combination. There is a need to choose from a range of breeds and crossbreeding systems and to determine the age and condition of animals at time of marketing to suit particular situations. As a generalisation young cattle (usually 5 months and older) in good condition are sold for the domestic market. Older animals, especially over 18 months, will usually be purchased for export markets. The age and condition determine whether they suit the differing requirements of the US, Korean or Japanese markets.

3.6 Processing

Beef cattle can be slaughtered at slaughterhouses, domestic abattoirs or export abattoirs. Most cattle are slaughtered in export abattoirs where the carcase in whole or in part can be exported or sold on the domestic market. The carcases, if destined for export, will usually be boned out and packed in cartons for freezing or sent chilled. Traditional retail outlets in Australia are supplied in carcase form but there is an increasing supply of boxed meat to retail outlets.

Most beef is retailed domestically as fresh meat or exported as chilled or frozen meat. However, smallgoods and other further preparations (e.g. hamburgers, pies etc) are other outlets.

3.7 Industry Regulation

The production and processing of cattle is regulated to prevent or control diseases and to ensure that meat is processed hygienically for domestic consumption or export.

Cattle production is regulated by four main Acts:-

(1) Stock Diseases Act - control or eradication of infectious diseases and animal identification (tail tag trace back system)

(2) Cattle Compensation Act - compensation for compulsory slaughter of infected animals

(3) Artificial Breeding Act - to regulate and control the artificial breeding of livestock

(4) Brands Act - owner identification of livestock.

Processing of beef is regulated at both the domestic and export level. The Meat Hygiene Authority of South Australia through the Meat Hygiene Act is responsible for slaughterhouse and abattoir standards of construction. The Commonwealth Department of Primary Industries and Energy is responsible for export abattoirs and health and hygiene of slaughtering and packaging in both export and domestic abattoirs. There is also the South Australian Meat Corporation Act which relates to the administration of the government owned abattoir, Samcor at Gepps Cross.

The Australian Meat and Livestock Corporation through AUS-MEAT is responsible for quality control in all export abattoirs and those domestic abattoirs that have joined AUS-MEAT as accredited abattoirs.

3.8 Major Developments

In recent years there have been a number of significant health, production and marketing developments in the beef industry. On the health side Australia is provisionally free of brucellosis after a long industry program. Monitoring in abattoirs will still continue up to June 1992 in South Australia. The whole country will be "Impending Free" for tuberculosis in 1992. Some breakdowns can be anticipated after that date and abattoir inspection for infected carcases will still be needed. The trace-back system used in this campaign was also vital in Australia's speedy reaction to the potential closure of the US market due to organochlorin contamination. The eradication of these diseases will safeguard future export markets and also improve productivity.

On the production side the development of Breedplan as a national performance recording service for genetic improvement, the introduction of new cattle breeds and the increasing use of cross breeding are all significant developments. These development will improve productivity and allow the matching of breed combinations to environment and markets.

Over the last decade there has been a major emphasis in the beef industry on marketing of livestock and meat. AUS-MEAT has been established, under the auspices of the AMLC, to develop quality control systems and monitor objective measurement and description of carcases and meat. These AUS-MEAT accredited measurements and descriptions will be used for marketing livestock by producers and also the selling of carcases and meat cuts both overseas and domestically. The development of an objective system of measurement and description will improve marketing efficiency. Producers will receive more information on their output relative to market needs and the buyers of our meat will gain confidence in our ability to produce their requirements and accurately describe our output.

Computer Aided Livestock Marketing (CALM) has also been established by the industry to run a computer based marketing system. CALM, like AUS-MEAT, is established under the auspices AMLC. AUS-MEAT accredited measurements are an important part of the CALM system. Both CALM and AUS-MEAT have made significant progress in recent years but still have a long way to go to achieve their full potential.

Industry, through AMLC, has spent large amounts on consumer promotion of beef both overseas and domestically. In 1989-90 the AMLC spent over $15m on promotion of beef and lamb. Expenditure, particularly on the export markets, has been significant in maintaining Australia's market share.

The Australian Meat and Live-stock Research and Development Corporation (AMLRDC), under the Australian Meat and Live-stock Research and Development Corporation Act, was established in July 1985. The AMLRDC's major responsibility is to identify and fund, on behalf of the meat and livestock industry, research and development in the fields of production, processing, storage, transport and marketing. Funds collected by the Department of Primary Industries and Energy on behalf of the AMLRDC have, with industry support, increased markedly in recent years. The AMLRDC has made significant changes and improvements in the methods of managing industry funds and to the allocation of more funds to market development and off-farm areas of research and development.

The AMLRDC is a national funding body. At the South Australian level changes to the Cattle Compensation Act to allow expenditure of surplus funds on research and development has been significant in funding research and development into local and state issues for the beef and dairy industries.

4. INDUSTRY POTENTIAL

4.1 Decade of Expansion

The beef industry is in a decade of opportunity and expansion. It was predicted by Australian Bureau of Agricultural and Resource Economics (ABARE) in February 1991, that Australia's beef production will expand by 20 percent in the next five years. Over the same period the value of exports should grow to $2.7 billion (1990/91$). If ABARE's predictions are correct, the beef industry will soon be Australia's largest rural industry.

4.2 Expanding Markets

The beef industry future development will be dominated by a change in focus of Australia's beef exports away from the United States towards North Asia, particularly Japan.

The United States has traditionally been Australia's principal export destination for beef. However, with the liberalisation of the beef markets in Japan and the re-opening of Republic of Korea market the importance of the US will decline. It is projected by the ABARE that by 1995/96 Australia's beef exports to Japan and Korea will be 47% of the total compared to 37% at present.

The Koreans have expressed a preference for grass fed beef and for frozen bone-in imports. Australia has supplied this product with little competition from other suppliers. The Japanese market is a mixture of high quality chilled meat, both from feedlots and grass fed animals and also an expanding manufacturing trade in frozen beef. Australia will supply most of the grass fed chilled beef and the frozen manufacturing beef. While the US is expected to supply most of the grain fed (feed lot) beef to Japan, Australia's exports of grain fed beef to Japan are predicted to increase by nearly 200% by 1995/96 to 79,000 tonnes. Australia hopes to maintain its current share of over 50% of Japan's total beef imports.

4.3 Consumption

Beef consumption per head in Australia has fallen in recent years, largely as a response to higher domestic prices due to more profitable export markets. In 1982 consumption was 49.7 kg per head and in 1989/90 it was 40.9 kg per head. Beef consumption is predicted by ABARE to fall slightly for the next three years to a low of 40.0 kg in 1992/93.

4.4 Numbers

Australian beef cattle numbers should increase over the next five years from 22.6 m in 1990 to a predicted 28.5 m in 1996. This is similar to the record numbers of beef cattle in 1976. In South Australia cattle numbers are expected to increase in line with national trends, indicating a state beef herd of 1,050,000 by 1995.

4.5 Production and Exports

As the national beef herd is rebuilding given the favourable export situation, ABARE has predicted production to continue to fall for another year or two as producers build up herds and then increase by over 20 percent by 1995. On the other hand, the level of exports will increase from now onwards. By 1995/96 exports are expected to have increased by nearly 20 percent over the 1989/90 level. Most of these exports will go to Japan and Korea.

4.6 Profitability

ABARE has estimated a 6.6 percent real return, including capital appreciation for all Australia's beef properties in 1988/89 and forecast minus 8.2 percent for 1990/91. The equivalent figures for all broadacre agriculture are 8.2 percent and minus 10.7 percent. In 1988/89 and 1989/90 there was a significant increase in stocks due to herd re-building. This expansion in the capital base and predicted high prices should lead to a profitable beef industry in the next few years.

Wool specifically, to a lesser extent prime lambs and wheat, have had larger gross margins per hectare than beef in recent years in South Australia. However, given the recent and expected future improvement in beef prices, as illustrated below, and the reduction in wool and wheat prices, the relative profitability of beef has increased.

BEEF PRICES - SALEYARDS AND RETAIL

Nominal Price	Unit	1988/89 (p)	1989/90 (f)	1990/91 (z)	1991/92 (z)	1992/93 (z)	1993/94 (z)	1994/95 (z)	1995/96 (z)
All Cattle									
- saleyard	c/kg	210	216	220	235	245	250	245	240
- retail	c/kg	683	746	779	824	862	897	923	951

(p) Preliminary
(f) ABARE forecast
(z) ABARE projection

SOURCE: ABARE Outlook Conference (1991)

5. CONSTRAINTS AND OPPORTUNITIES IN THE BEEF INDUSTRY

5.1 Introduction

The beef industry is in an expansion phase. The liberalisation of the Japanese market and the re-opening of the Korean market will lead to an expansion of beef exports and a maintenance of high beef prices in the near future. This relatively favourable outlook compared to other rural industries is important in the future activities of the Department of Agriculture.

The following areas have been identified by the Commodity Group as either constraints to future growth or areas of opportunity for improvement. In most cases constraints are also opportunities, because the elimination or reduction in the constraints usually presents opportunities. These constraints and opportunities are listed under generalised headings.

5.2 Processing

Feedback to Producer on carcase quality

Considerable improvements through AUS-MEAT have been made in the mechanics of feedback to producer on the quality of carcases of livestock sold. However, insufficient use and understanding of feedback is made by producers receiving the information and many producers still do not receive any feedback.

Adoption of technology

It is perceived that the meat processing industry in South Australia has been slow to adopt new technology such as electrical stimulation. This appears to relate to lack of risk capital and problems in renegotiating awards for abattoir workers when new technology is adopted.

Age of Abattoirs

All South Australia's major export abattoirs are relatively old and located in areas subject to increasing urbanisation pressures. For example, Samcor at Gepps Cross, Metro Meat's abattoirs at Noarlunga and Murray Bridge.

Level of industrial strikes

The South Australian meat processing industry has not suffered the number of industrial problems encountered in other states (especially Victoria). However, the level is still regarded as too high.

5.3 Transport

Distance from S.A. to Japan and Korea

The swing to chilled rather than frozen meat in expanding markets (eg Japan and Korea) has highlighted the disadvantage of South Australia relative to other states in terms of shipping distance to these markets.

Shortage of direct shipping

Related to the above is the amount of direct shipping to major meat markets available to meat exporters. To meet importing country requirements, for chilled exports (maximum times from slaughter to delivery) more direct shipping to Japan and Korea (ie no stops in Melbourne or Sydney) is required.

Poor design of transport trucks

While considerable progress has been made in designing livestock crates to reduce bruising, adoption by beef producers, and to some extent transport operators, has been slow.

5.4 Quality of Beef

Tenderness

The variability of beef tenderness at the consumer level is seen as a restraint on demand. This variability is related to pre-slaughtering handling of livestock and post-slaughtering treatment of carcases (especially rapid chilling). There has been a failure by South Australian abattoirs to adopt electrical stimulation technology. Such technology has been shown to have significant effect upon beef tenderness.

5.5 Feedlotting

Policy issues

The large expansion in feedlotting facilities in NSW and Queensland has demonstrated the potential for expansion of grain finishing in Australia. Expansion of feedlotting has not occurred in South Australia to a similar extent.

The potential for such expansion needs examination and any obstacles (environmental, welfare and husbandry issues) need to be resolved.

On-farm factors

The on-farm factors (breeds and crosses, pre-entry feeding etc) need clarification as the supply of animals to feedlots is a new and expanding market of South Australian producers.

On-farm pasture finishing

While feedlotting for grain finished cattle has potential, so too does the use of irrigation, crops, silage and special purpose pastures for finishing cattle.

5.6 Improvements in Farm Productivity

Many studies have suggested the adoption of known technology should significantly improve farm productivity in the areas of health, nutrition, breeding and reproduction. However, it is believed, and this is supported by productivity studies, that the rate of appropriate technology adoption in the beef industry has been slow relative to other agricultural industries.

5.7 Genetic Improvements

Breeding Objectives

There is a need to link estimated breeding values (EBVs) for various traits (growth, carcase quality etc) via breeding objectives for different production systems and market outlets. Such a linking will lead to faster genetic improvement and a closer matching with the range of market requirements.

New Technology

The developing technology of transgenics and the application of artificial breeding techniques (MOET) offer the potential to increase the rate of genetic improvement.

Evaluating the role of new breeds

The increasing range of beef breeds available in Australia and an increasing range of markets highlight the need for continued evaluation of the merit of such breeds in different environments and for different markets.

The increasing adoption of crossbreeding systems strengthens the need to determine the accuracy of estimated breeding values, which have been determined in pure breeding systems, as a measure of the relative performance of such crossbred progeny.

5.8 Animal Health

Abattoir monitoring of health status of herds

Animal health issues still limit production in many situations and occasionally cause major losses. Benefits may accrue form the development of an abattoir herd health monitoring scheme for acute and chronic diseases and deficiencies of trace elements.

Worms

Wormcheck as an extension program and as a management approach for producers has had reasonable success in the sheep industry. Internal parasite strategies need clarification in the beef industry to maximise productivity and minimise development of resistance to drenches. Worm control is not a major production cost but the effect of worms upon productivity may be higher than assumed.

Other Health Issues

Other animal health areas such as inherited defects, metabolic diseases, infertility, abortion etc. all reduce potential productivity. Also animal health programs in feedlotting need clarification.

5.9 Pastures

Productivity of existing pastures, the role and value of new pasture species and efficient use of available feed are all areas of potential improvement. The important aspect of identifying the future potential of pastures and forage crops and the strategies recommended to achieve these potentials is detailed in the separate 'Pasture and Forage Crop Commodity Plan'.

5.10 Constraints & Opportunities as determined by other Organisations

5.10.1 Introduction

Other organisations have determined their constraints and opportunities for the beef industry. With particular relevance to this report is the priority areas for funding as determined by the AMLRDC and the Cattle Compensation Fund Advisory Committee (South Australia). These priorities are listed below. They are similar to those determined by the Beef Commodity Group.

5.10.2 AMLRDC

The AMLRDC has determined a number of "Principal Objectives" for priority funding areas. These 'Objectives' are listed below with a briefing statement on each:-

Principal Objective 1 - Acquiring Knowledge About Markets

The Australian beef & sheepmeat industries acknowledge that future prosperity will be determined by the industries ability to meet market requirements.

Specific areas under this objective are:-

- analysis of market threats
- strategic market knowledge
- identification of market opportunities

Principal Objective 2 - Improving the Efficiency of Converting Livestock to Meat

The cost of converting livestock to meat is, on its own, only a small part of the total cost to the consumer, there is circumstantial evidence of the need for improved efficiency in this sector.

Specific areas under this objective are:-

- beef conversion cost reduction
- more efficient meat inspection
- meat distribution cost reduction

Principal Objective 3 - Improving the Efficiency of Livestock Production

Specific areas under this objective are:-

- the north Australia program
- controlling economically important diseases
- animal welfare and stress reduction
- improving feed conversion
- increasing genetic improvement.

Principal Objective 4 - Improving Product Range, Quality & Marketability

The industry, through its research and development program, must identify and take advantage of market opportunities for new products and co-products.

Specific areas under this objective are:-

- human nutrition knowledge
- quality measurement improvements
- new product development
- co-product value enhancement
- meat yield and quality improvement.

5.10.3 **Cattle Compensation Fund Advisory Committee (South Australia)**

The Cattle Compensation Fund has provided funds for research projects related to the beef and dairy industries in South Australia for only a few years. However, in that period the fund has demonstrated the advantages of a state orientated rather than national orientated fund. It has supported a range of projects of state relevance.

In 1990 the Fund requested a review on research priorities. The resulting report listed the following priorities:

(1) nutrition and pastures
(2) education/extension/technology transfer
(3) reproduction
(4) genetic improvement
(5) trace elements
(6) residues
(7) meat quality
(8) animal health.

6. CURRENT PROGRAMS/PROJECTS FOR THE BEEF INDUSTRY

6.1 Introduction

The following is a list of current programs and projects being undertaken by the Department of Agriculture. These programs and projects are listed under broad program headings and subdivided where possible into projects. A brief description of each program/project is given.

6.2 Animal Health

6.2.1 Brucellosis, Tuberculosis Eradication Campaign

The national BTEC program commenced in the 1970's to eradicate brucellosis and tuberculosis. Brucellosis has almost been eradicated. Monitoring in abattoirs and selected property testing will continue for a decade for tuberculosis. The Department has been involved in national planning for activities post 1992. This has involved secondment of a staff member for three months.

6.2.2 Market Inspections and Stock Inspections

Market inspection of stock aims to ensure stock sold through the auction system comply with the Stock Diseases Act requirements. This includes monitoring presence of notifiable diseases and the cattle traceback scheme. General stock inspections occur as required under the Stock Diseases Act and as required for interstate movement of cattle.

6.2.3 Animal Health Advice

District Veterinary Officers and Animal Health Advisers provide an investigation service for cattle herd problems and general advice on animal health programs for beef producers.

6.2.4 Internal Parasites

A survey for gastro-intestinal nematodes in beef cattle in S.A. is being conducted to establish the abundance and distribution of internal parasites of cattle in S.A. An aim of this project is to assess the applicability of current control strategies to different Regions of the State.

A survey for coccidia parasites in beef cattle in S.A. is also underway and will provide basic data on the prevalence and distribution of coccidia parasites affecting beef cattle production in the different regions of S.A.

6.2.5 Quarantine and Export Inspections

South Australia, through Department of Agriculture, carries out animal quarantine and export procedures on behalf of the Commonwealth. The 'Animal Exports' part of this project ensures that exported animal reproductive materials and animals comply with the health requirements of the importing country. The 'Animal Quarantine' part provides protection against entry into Australia of animal pests and diseases, while permitting the international flow of goods and people.

6.2.6 Exotic Disease Plans

Programs developed in conjunction with national objectives are in place to counter any outbreak of an exotic disease. Such programs require continuous staff training.

6.2.7 Diagnostic Services

Provision of a diagnostic support service to veterinary practitioners and others servicing the beef cattle industry.

6.2.8 Cobalt Pellets for Cattle

This research project will provide preliminary information so that (a) appropriate advice regarding the use of the pellet can be given to field staff and farmers (b) an application will be submitted to a funding body requesting support for a more detailed evaluation of cobalt supplements for cattle.

6.2.9 Diagnostic Test for Cobalt Deficiency

An evaluation of diagnostic tests to detect early stages of cobalt deficiency is being undertaken by a PHD student at the Waite (Adelaide University).

6.2.10 Cadmium, Copper and Selenium Status of S.A. Cattle

One aim of this project is to survey for cadmium concentrations in liver and kidney of cattle. This data will have implications for public health and the export of Australian beef. Another aim is to identify areas in S.A. where cattle are likely to be at risk to deficiencies of copper and selenium. This will allow producers to implement corrective measures.

6.3 Meat Processing, Meat Quality and Marketing

6.3.1 Meat Hygiene Authority

The Meat Hygiene Authority has the responsibility of ensuring that meat purchased by consumers has been processed in a hygienic way. Its responsibilities include licensing of slaughterhouses and abattoirs.

6.3.2 Carcase Competitions

To encourage producers to take a more active interest in marketing and the quality of their produce carcase competitions are supported by the Department of Agriculture. The Department of Agriculture supports the judging of entries at both the State and Royal Show Competitions. Added extension input comes from running live assessment competitions and demonstrations in association with such competitions.

6.3.3 Sale by Description

A long term aim of the Department has been to have cattle sold on a descriptive basis with direct delivery to the buyer from the farm. The recently approved RIADF project will see renewed support for CALM by the Department. CALM is one form of improved marketing of livestock with direct delivery and feedback to producers.

6.3.4 Strategic Industry Review of Meat Processing

A review is being conducted jointly by the Department of Agriculture and Department of Industry, Trade and Technology to provide guidance to government on how to maximise economic benefits of the meat processing industry to SA.

6.3.5 Bruising

With the advent of AUS-MEAT feedback sheets pastoralists are becoming aware of the extent of bruising to pastoral cattle. To reduce the economic cost of bruising a research and development, a project funded by the Cattle Compensation Fund has just been initiated.

6.4 Animal Welfare

There is an on going commitment to encourage sound animal welfare practices wherever cattle are handled. This includes adoption of improved design of livestock transports and vigilance in saleyards for mistreatment.

6.5 Genetic Improvement

6.5.1 Crossbreeding

Crossbreeding has been the subject of major research project for over 20 years in South Australia. The breed evaluation work at Struan centred on Charolais, Hereford, Shorthorn, Simmental, Jersey and their crosses is reaching its final stages of evaluation. This work is being replaced by on-farm evaluations and increased extension input into planned crossbreeding programs. It is proposed that a crossbreeding herd be maintained at Struan Research Centre for demonstration purposes.

6.5.2 Planned Breeding

Producers are encouraged to base their cattle breeding programs on objective data after setting clear breeding objectives. The extension of Breedplan (the national performance recording service) is an integral part of this and as Estimated Breeding Values (EBVs) for more traits become available the development and use of breeding objectives need continued extension support.

6.5.3 Davies Forum

For the past four years the Department has combined with Waite Institute in organising a Forum where an international beef specialist has been the key note speaker. This has provided the opportunity for producers to hear of the latest developments in beef research and to discuss the implications of such research on management practices.

6.5.4 Stud Beef Field Day Promotion

The Department has assisted industry to promote the 1991 S.A. Stud Beef field days (a showcase of S.A. studs) interstate and overseas with the intention of attracting potential buyers of breeding animal to both attend the field days and holiday in S.A. The Department of Tourism has also assisted industry in promoting the field days. This support will continue for the 1992 field days.

6.6 Feedlotting

6.6.1 Feedlot Management

Advice is provided to producers considering establishing feedlots and running feedlots. This advice includes design criteria and on-going preparation of balanced rations using 'Takeaway'.

6.6.2 Beef Cattle Feedlot Industry Review

Trust Funds have been obtained to conduct a review to establish whether feedlotting should be encouraged in S.A. and, if appropriate, to develop environmental and policy guidelines for their development. This review will be finished mid 1991.

6.7 Pasture and Nutrition

6.7.1 Pasture Assessment Program

In conjunction with advice to sheep producers a cattle extension program is being initiated to provide accurate advice to producers on how to assess the volume and quality of pastures.

6.7.2 Takeaway & Ration Formulation

The least cost feed formulation package 'Takeaway' developed by Department of Agriculture staff is used extensively for preparation of rations for cattle producers. This package will be further developed and marketed where appropriate.

6.7.3 Supplementary & Drought Feeding

Information is regularly updated and advice provided to producers as dictated by seasonal conditions.

6.7.4 Pasture Varieties

Research into pasture varieties for both the cereal/livestock zone and the high rainfall zone are on-going to develop improved pastures for sheep, beef cattle and dairy cattle. Full details of pasture research are available from the Pasture and Forage Crop Commodity Group Report.

6.8 Cattle Management and Production

6.8.1 Beefpro

Beefpro is a project aimed at improving the rate of technology adoption by beef producers by providing an individual consulting service. It is a new approach to technology transfer and will evaluate the consultancy approach. This will involve charging the producers a fee for the individual services.

6.8.2 General Beef Cattle Management Advice

Advisers provide both planned and adhoc advice to graziers on the topics of genetics, reproduction, nutrition, health and production economics. The thrust of this service varies depending upon economic conditions and perceived areas of need and local demand.

6.8.3 Integrated Cattle Herd

Production from a beef herd management system incorporating high serving capacity and high growth rate bulls used on all cows, low dystocia potential bulls on heifers, and highly fertile cows, is being compared with a "conventional" straight breeding system based on selection of above average weaning weight bulls and the heaviest heifers.

6.8.4. Productivity of Northern Cattle

A project on productivity of northern cattle will apply and demonstrate ways of maximising the productivity of pastoral beef herds by improved management practices and increasing profits without increasing herd size or costs.

6.8.5. Heifer Management

A research trial aimed at developing and demonstrating farm management systems for rearing beef heifers which improve the milking ability of the beef herd and to make more efficient use of available pasture is underway. A second aim is to determine during which period of heifer development a restriction of growth will improve lactation. The field work for this trial concluded in 1990.

6.9 Policy Advice and Marketing Information

6.9.1 Policy Advice

The Minister of Agriculture and the Director-General expect accurate, unbiased and relevant advice on a range of policy issues affecting the beef industry. This advice is provided by a range of senior departmental officers utilising their own knowledge and that of industry (both organisations and individuals) and other departmental officers.

6.9.2 Marketing Information

It is necessary to maintain up to date marketing intelligence and information to provide accurate advice to the Minister, to assist in determining program priorities and in the provision of advice to farmers.

6.10 Control of Animals and Plants

6.10.1 Rabbit Control

Rabbits are a major competitor for feed with livestock in many areas of Australia. It has been estimated by Animal and Plant Control Commission that rabbits reduce productivity by $17m/year. A major research program is underway in the arid zone. This includes the introduction of the rabbit flea for the spread of myxomatosis. this project is funded by state and AMLRDC funds.

6.10.2 Other Issues

Other minor projects relate to monitoring of invasive shrubs in the pastoral zone and research into the control of dingoes.

7. RESOURCES ALLOCATED TO BEEF INDUSTRY

7.1 Information Collected

An attempt was made to determine the level and source of resources managed by the Department of Agriculture in areas related to the beef industry. Information was collected by a proforma, through interviews and from trust fund documentation. The information collected is summarised below.

It is important to note that the information obtained in some areas was very precise (e.g. trust funded projects) but in many other areas (unfortunately most) was not precise. This lack of precision occurs for several reasons -

(1) resources are allocated on multi-commodity basis (e.g. Meat Hygiene Authority and many animal health areas).
(2) few or no records kept as to the breakup between various areas or to the level of expenditure.

It should also be stressed that the information provided excludes many areas of expense -

(1) no overheads (e.g. office accommodation, telephone cost) are included
(2) clerical support (typing, accounts etc) are generally excluded
(3) management of beef orientated staff by senior staff (e.g. Senior District Officers or Divisional Directors) is excluded.
(4) also excluded is a number of specific activities of the Department. These include administration of the registration of veterinary chemicals, library services, pasture research and development, rural assistance activities and diagnostic services (Vet lab). Some of these (e.g. diagnostic services) are covered in other Commodity Reports but many are excluded from all reports.

It is concluded that the information provided is comparable with other commodity reports as all have the same limitations as detailed above. However, in future much greater effort is required to provide more accurate and more detailed information on expenditure under each commodity area.

7.2 Resources and Fund allocation

	FTE		SALARIES		OPERATING	
	State	Trust	State	Trust	State	Trust
1. Animal Health *	3.6	3.7	141,400	150,000	8,000	89,000
2. Cattle Research and Demonstration - Struan Related - Wanbi	 1.8 0.4	 2.1	 69,000 20,000	 56,400	 14,500 400	 20,042
3. Husbandry Advice	3.5		169,000		8,000	
4. Policy Marketing and Administration	1.4		60,000		5,000	
5. Meat Hygiene Authority	1.2		50,000		2,000	

Income is minor for all areas except Struan and Wanbi. The estimated income for Struan in 1990/91 is $226,000 and Wanbi $12,800.

* Details on head office animal health staff unavailable at time of printing.

8. REVIEW OF EXISTING PROGRAMS/PROJECTS

8.1 Introduction

The potential of the beef industry and its constraints and opportunities have been identified and discussed in previous sections. Also the existing programs/projects and resources of the Department have been listed. This section examines the priority placed by the Beef Commodity Group upon existing programs/projects.

Initially all Commodity Group members were surveyed to obtain their individual priority for each existing project/program. These individual results were grouped to obtain an average rating and then the results were discussed collectively by the Group. The Groups attitude to existing programs/projects is detailed below.

8.2 Priority of Existing Projects/Programs

Project/Program	Priority
Animal Health	
Brucellosis, Tuberculosis Eradication Campaign	High
Market Inspections & Stock Inspections	Low
Animal Health Advice	Medium
Internal Parasites	High
- nematodes	High
- coccidia	Medium
Quarantine & Export Inspections	High
Exotic Disease Plan	High
Diagnostic Services	Medium
Meat Processing - Meat Quality & Marketing	
Meat Hygiene Authority	Medium
Carcase Competitions	Medium/Low
Sale by Description	High
Strategic Industry Review of Meat Processing	High
Bruising	Medium
Animal Welfare	
Advisory Program on Animal Welfare	Medium
Genetic Improvement	
Crossbreeding	High
Planned Breeding	High
Davies Forum	High
Stud Beef Field Day Promotion	Medium
Feedlotting	
Feedlot Management	High
Beef Cattle Feedlot Industry Review	High
Pasture & Nutrition	
Pasture Assessment	High
Takeaway & Ration Formulation	High
Supplementary & Drought Feeding	Medium
Pasture Varieties	High
Cattle Management & Production	
Beefpro	High
General Beef Cattle Management Advice	High
Integrated Cattle Herd	Medium
Productivity of Northern Cattle	High
Heifer Management	Medium

8.3 Areas of Low Priority

The Beef Commodity Group decided that at this stage of development of the commodity process, only existing projects/programs with low priority should be questioned. Accordingly some Group comments are made upon low priority areas identified in the above survey.

8.3.1 Market Inspections

There was a range of views about market inspections. However, the majority view was that the future of such inspections should be seriously questioned given the following:-

(1) staffing levels are low and therefore their efficiency questioned.
(2) other forms of marketing are becoming more important
(3) there may be more efficient ways of achieving the same result.

However, it was noted that market inspections were part of the BTEC campaign (i.e. checks tail tags). Also it was appreciated that market inspections for cattle are usually done in conjunction with sheep inspections.

8.3.2 Diagnostic Test for Cobalt Deficiency

This was a low priority area but it is a research project which is nearing completion.

8.3.3 Carcase Competitions

This project was on the border between low and medium priority. The Department has reduced involvement in this area in recent years. The Group supports a review of future involvement. Unless such competitions become more relevant and obtain wider producer involvement, then future support by the Department should halt.

9. FUTURE DIRECTIONS IN BEEF

9.1 Introduction

In Chapter 5 the opportunities and constraints upon the beef industry in South Australia were identified. The Beef Commodity Group members were asked to rank, in priority, each of these opportunities and constraints for future activity by either the Department or another organisation. The results (10 responses) of this survey were averaged. Below are the results in terms of ranking and whether the work should be the responsibility of the Department or another organisation.

9.2 Survey Results

AREA	RANKING	RESPONSIBILITY*
Processing		
Feedback to producers	High	A/O
Adoption of technology	High	O
Age of abattoirs	Medium	O
Level of industrial strikes	High	O
Transport		
Distance from S.A. to Japan & Korea	Low	O
Shortage of direct shipping	Low	O
Poor design of transport truck	Medium	A/O
Improved handling of stock from farm through to abattoir	High	A/O
Quality		
Tenderness	Very High	O
Feedlotting		
Expanding Feedlotting in S.A.	High	A/O
Supplying stores to feedlots	High	A/O
On farm factors effecting feedlot performance	Medium	A
On farm finishing using silage etc	Low	A
Improvements in Farm Productivity		
Improved adoption of known technology	High	A
Computer models to optimise efficiency	Low	A
Genetic Improvements		
Linking EBVs and breeding objectives	High	A/O
Transgenics cloning & artificial breeding	Low	A/O
Continued breed evaluation	Medium	A
Usefulness of EBVs in crossbreeding	Very High	A/O
Animal Health		
Abattoir herd health monitoring	Medium	A
Metabolic diseases, residues etc	High	A/O
Improved reproductive efficiency	Low	A
Acute & chronic diseases	Low	A
Inherited defects	Low	A
Internal parasite strategies	Medium	A/O
Prevention of exotic diseases	High	A/O
Pastures		
Increased productivity from existing pastures	High	A

* A = Responsibility of Department of Agriculture
O = Responsibility of another organisation
A/O = Joint Responsibility

9.3 Elaboration of Priority Areas

The Group discussed the results of the survey. This allowed for elaboration of views on the higher priority areas and presented an opportunity for people to seek reclassification of low priority areas. Below is a summary of discussion on the very high and high priority areas.

9.3.1 Processing

a. Feedback to producers

There was strong support for the need for future programs in the area of feedback to producers. Members regarded feedback as a critical link in the marketing chain to ensure producers were aware of market discounts and premiums and the quality of animals they were producing.

AUS-MEAT resources in South Australia have been too low to effectively push feedback at the producer level. It was believed that agents needed further training and assistance in the area of feedback. Concern was also expressed about the use of P8 fat depth site for feedback as compared to the previous fat measurement site of 12/13 rib.

The Departments recently trust funded projects on CALM and bruising were seen as appropriate responses by the Department to this very important area. However it was noted that AUS-MEAT and CALM had the major responsibility for feedback to producers.

b. Adoption of technology, age of abattoir & level of strikes

The Groups supported work in this area but regarded it largely outside the Department of Agriculture's responsibility. It was noted that the report entitled Strategic Review of the Meat Processing Industry (a joint Department of Agriculture and Department of Industry, Trade & Technology activity) will be completed shortly. This Report considers these issues and possible state government responses to these important issues.

9.3.2 Transport

a. Poor design of trucks

It was agreed that there was sufficient information available on truck design but not all of it was being adopted. Accordingly this area requires work and training but needs to be done in conjunction with industry. It was suggested that external funding should be obtained if the transport industry supports the involvement of the Department in running training programs. Further effort is also required at the farmer level as well as trucking company level. The recently supported bruising project for the pastoral cattle zone will be of value in identifying poor trucking practices.

9.3.3 Quality

a. Beef tenderness

The variability in tenderness of beef was regarded as a major constraint to industry expansion. It was believed that sufficient knowledge was available (eg electrical stimulation, vacuum packing) to reduce the problem but it was not regarded as the Department of Agriculture responsibility to follow this up. AUS-MEAT and CSIRO were the relevant organisations.

b. Microbiological Quality Assurance

Microbiological Quality Assurance was not part of the priorities survey. However, it was highlighted in later discussion on priorities as an increasingly important issue in maintaining access to both local and export markets. There was the need to develop rapid on-site lists to detect bacterial contamination. The Group agreed to monitor this area for future development.

9.3.4 Feedlotting

The potential of feedlotting expansion in South Australia needs examination. The Group awaits the 'Review' being prepared by the Department of Agriculture using S.A. Cattle Compensation Funds before recommending any future action by the Department.

The on-farm production of animals for feedlotting either in S.A. or other states is an expanding market outlet. Extension effort to farmers on feedlot requirements need expansion

9.3.5 Improvements in Farm Productivity

The Department has a continuing role in promoting appropriate technology in all areas (breeding, nutrition etc). The launching by the Department of BEEFPRO (an individual consultancy service) was supported but there were varying views on its appropriates as on extension technique. The Group supported the maintenance of existing extension resources for general advice to beef producers.

9.3.6 Genetic Improvements

a. Breeding Objectives

This was a high priority area which the Department had state responsibilities, along with AGBU which had national responsibilities. The development by the Animal Genetics and Breeding Unit (AGBU) at Armidale University of the BObject (breeding objectives for beef) was supported, as was the Department's technical input in this area.

b. Estimated Breeding Values and Crossbreeding

The Department's support for Breedplan needs to continue at the extension level. At the research level the investigation by the Department of a research project to examine the relevance of EBVs, calculated for pure breeds, in the crossbreeding situation was supported as a high priority. This was regarded as the major research project for Struan in the near future.

9.3.6 Animal Health

a. Abattoir Herd Health Monitoring

It was noted that W.A. work in developing a herd health monitoring service needs to be monitored. The usefulness of such a service in South Australia needs to be determined.

b. Metabolic Diseases & Residues

Work in this area at both the research, extension and monitoring level was seen as a high priority.

9.4 Major Issues

9.4.1 Introduction

The above is the summary of the Groups attitudes to specific program/projects. In discussing specific areas a number of overriding major issues were highlighted. These major issues effect future effectiveness of the Departmental services to the beef industry. These are discussed below.

9.4.2 The Research Resource

The Department of Agriculture has a major investment in research resources at Struan in both land and animals. The continued effectiveness of this resource was questioned given:-

(i) limited staff resources - it was noted that less than 0.3 of an FTE was available as a resource for beef research (this does not include farm labour).

(ii) It is understood that the existing research staff provided will be totally utilized in writing up the recently completed cross-breeding research and the integrated herd project.

(iii) Lack of planned research - it was noted that at this stage there was no definite future beef research projects for Struan. The initial discussions on a research project on the relevance of EBVs in cross-breeding was noted and supported but as yet no firm proposal was prepared or any definite funding support obtained.

(iv) Lack of industry input - industry members felt that there had been a breakdown in formal industry liaison with Struan in recent years. This needed to be rectified.

Given the above the Beef Commodity Group highlights the need for attention to this beef research resource.

It was noted that the Ruminant Industry Research Review in 1984 recommended for beef research a total of 4.5 research officers at Struan with technical support. It is considered by the Group that at a minimum two full time researchers should be located at Struan to effectively utilise the resource. As the beef industry is an important and growing industry it should receive appropriate Departmental support. The Beef Commodity Group fully supported the continuation of state investment in beef research as long as it was effectively utilized. It is not being effectively utilized at present.

9.4.3 **Industry Consultation**

The research discussion and the preparation of the Beef Commodity Report has highlighted the need for more formal industry input into the department's activities, at all levels. It was noted that the meat sheep industry had 'State Lamb Committee' and wool had SWAG. A major priority of the Department and industry is to determine an appropriate structure for formal interaction between industry and the department. Once such a structure is determined, it should be implemented as soon as practical.

9.4.4 **Specialist Advice**

It was noted that the Department had increasingly moved towards a generalist extension service. This move was not supported. A specialist farmer, as opposed to a hobby farmer, generally needed specialist information. It was appreciated that given Departmental resources it was impossible to have a specialist beef officer at all district offices. However, given existing resources specialists are preferred to generalists.

9.4.5 **Marketing Services**

The issue of the Department of Agriculture moving more resources into marketing was discussed. It was agreed by industry representatives that as a general rule this was not the department's role in the beef industry. The AMLC, ABARE, AUS-TRADE and industry were the appropriate players. However, the Department should still be fully aware of market trends and developments when providing advice to farmers and determining future research directions. Also the Department had a role in providing technical input into the allocation of resources into South Australia and development of new enterprises (e.g. feedlots).

9.4.6 **Distribution of Beef Advisers**

It was noted that the South East, with over 40 percent of the state's cattle, had only one specialist beef adviser. A medium term aim should be to have another specialist adviser at Mount Gambier.