# final report

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## The value chain for meat and livestock products

*Research and development investment study*

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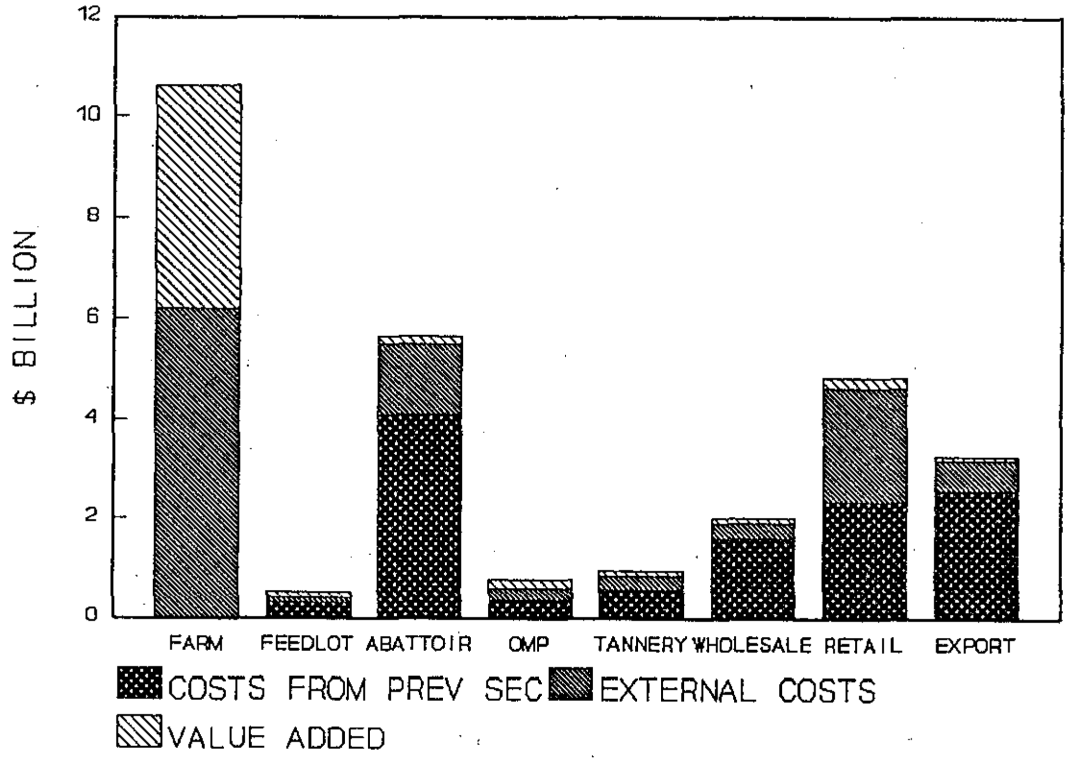
## FIGURE 1 : THE MEAT AND LIVESTOCK VALUE CHAIN




## TABLE 2 : CATTLE : INPUTS, OUTPUTS AND VALUE ADDED
($ million)

| OUTPUT FROM ($ MILLION) | INPUTS TO ($ MILLION) FARM | FEEDLOT | ABATTOIR | OMP | TANNERY | WHOLESALE | RETAIL | EXPORT | TOTAL TO OTHER SECTORS | EXTERNAL OUTPUTS | TOTAL OUTPUTS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FARM | 0 | 295 | 2979 | 0 | 0 | 0 | 0 | 42 | 3317 | 1619 | 4936 |
| FEEDLOT | 0 | 0 | 480 | 0 | 0 | 0 | 0 | 0 | 480 | 7 | 486 |
| ABATTOIR | 0 | 0 | 0 | 264 | 357 | 1228 | 478 | 2066 | 4392 | 191 | 4583 |
| OMP | 0 | 0 | 0 | 0 | 0 | 0 | 52 | 0 | 52 | 481 | 533 |
| TANNERY | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 495 | 495 |
| WHOLESALE | 0 | 0 | 0 | 0 | 0 | 0 | 1229 | 0 | 1229 | 339 | 1568 |
| RETAIL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3470 | 3470 |
| EXPORT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2511 | 2511 |
| TOTAL FROM OTHER SECTORS | 0 | 295 | 3459 | 264 | 357 | 1228 | 1759 | 2108 | 9469 | 9112 | 18582 |
| EXTERNAL INPUTS | 2843 | 109 | 1036 | 150 | 96 | 282 | 1542 | 375 | 6434 | | |
| TOTAL INPUTS | 2843 | 404 | 4495 | 414 | 453 | 1510 | 3301 | 2483 | 15903 | | |
| VALUE ADDED | 2093 | 82 | 88 | 119 | 41 | 58 | 169 | 28 | 2679 | | |

# 1. BACKGROUND

The R&D Investment Study (RADIS) is AMLRDC's major thrust to determine the best overall strategy for investing R&D funds. RADIS aims to provide a solid and well-researched basis for the Corporation to decide on its medium and long-term objectives and the particular R&D projects needed to achieve them.

The value chain model which is described in this report was developed under RADIS to help identify R&D strategies which would give the best returns to the meat and livestock industries. It was designed to be used in conjunction with other methods which are described in separate reports. This report is No. 9 in a series of 10 RADIS reports.

An earlier version of the value chain model was presented in a report dated February 1990. The modifications to the earlier model which are incorporated in this report include:-

(i) Inclusion of 1988/89 data in the model so that it represents the average situation over two years, rather than a one year 1987/88 "snapshot" represented previously.

(ii) A change in the information base for the farm sector. Farm costs are now based on ABARE survey data which have been disaggregated by region. The earlier version of the model used gross margin budgets produced by the State Departments of Agriculture.

(iii) Modifications to the cattle feedlot sector incorporating data obtained by the Australian Lot Feeders Association (ALFA). This indicates that the feedlot sector is larger than previously thought, and is continuing to expand very rapidly. Earlier estimates of inputs and outputs have been confirmed.

(iv) Abattoir data have been checked and validated against information provided by several meat companies.

(v) In the wholesale sector more accurate cost and margin estimates have been obtained and other modifications made to reflect the diversity of operations conducted in this sector.

(vi) Alterations to product flows between abattoirs, wholesalers, retailers and exporters based on detailed fact-finding in these sectors.

(vii) Inclusion of additional data from the Other Meat Processing (OMP) sector and further disaggregation of this complex sector. The additional information was obtained from visits to OMP establishments in four capital cities and country areas.

(viii) Inclusion of new information on the important and growing food service sector and more accurate cost estimates for the butcher and supermarket sectors.

# 2. METHODOLOGY

## 2.1 GENERAL APPROACH

The value chain model is a quantitative and qualitative descriptive model of the meat and livestock industry similar to a budget. It provides a complete accounting of physical and financial flows through the industry and between the industry and its external environment.

The model utilises a three-dimensional computerised spreadsheet which enables "what if" questions to be asked about the effect of technical and financial changes within the industry.

(i) Effective use of the methodology requires an understanding of the industry's qualitative dimensions to help interpret the quantitative data. The qualitative aspects include the structure of the industry, attitudes, and other hard-to-quantify factors that will affect the success and impact of R&D efforts.

(ii) The quantitative aspect of the value chain evaluates the movement of products from farmer to consumer and the transfer of money from consumer back to farmer via intermediaries. For each element in the chain there are details of revenues and costs (e.g. materials, labour, levies, interest, and the cost of products from preceding stages of production), as well as of net revenue obtained by value addition.

(iii) Physical product information is included as the basic "skeleton" of the model. This information includes the volume and type of meat and livestock products moving along the chain and the resources required to produce them.

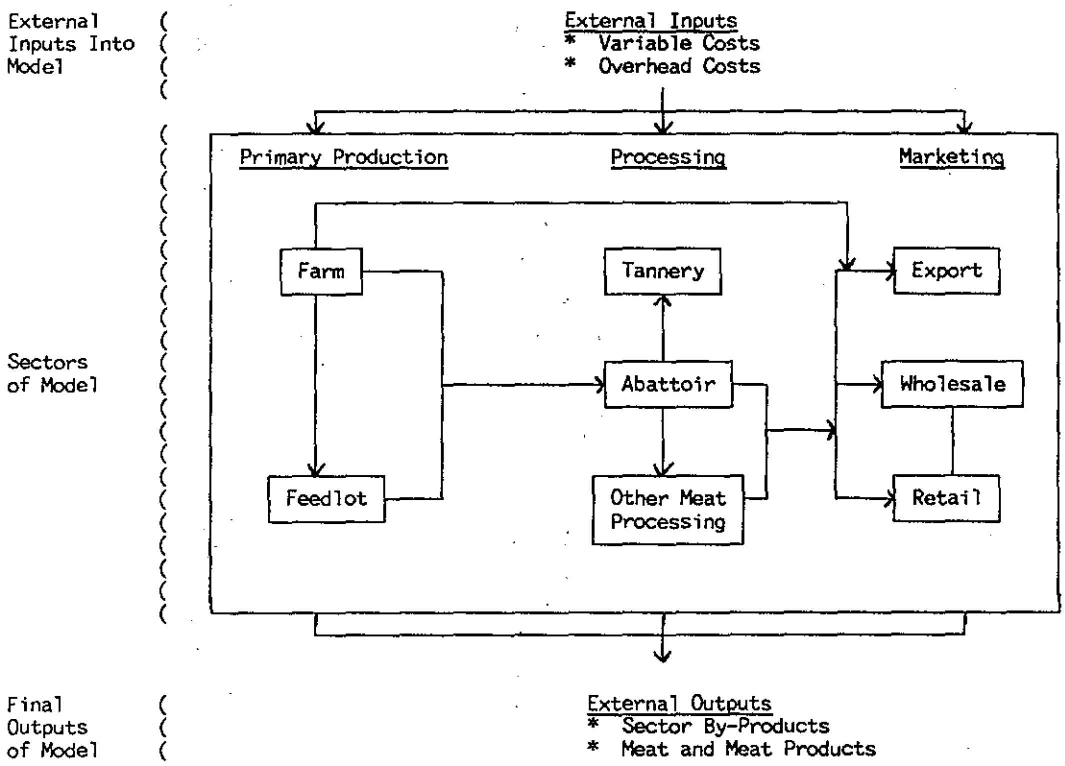
(iv) The chain is in reality a network of chains with linkages to the external environment.

(v) At each stage in the chain, the model specifies physical information including:-

* the stage of product conversion or transformation from live animal through to final consumer products;
* the nature and quantity of products brought forward from previous stage(s);
* materials and services brought into the chain from external sources (e.g. labour, packing materials, transport services, energy); and
* the nature and quantity of intermediate products passed forward to the next stage in the chain, or in the case of by-products, or final products, to the external environment.

(vi) At each stage in the chain the model specifies, where identifiable, financial information including:-

FIGURE 1 : OVERVIEW OF THE CATTLE AND SHEEP VALUE CHAIN MODELS



(vi) The model does not show the effect of changed production on prices, or the effect of altered prices on production. In reality, any R&D which improves a technical co-efficient (i.e. livestock turnoff or product conversion) or reduces costs will have an effect on production. Some of the benefits from increased production will be lost through lower prices. Similarly, measures which increase product prices will elicit a supply response which will in turn dampen the increased prices. The value chain model does not take these responses into consideration. It assumes that, unless otherwise specified, changes in production will be marketed through the same channels at the same prices, and that changes in costs and/or product prices will not affect supply. These assumptions make it desirable to use the value chain model in conjunction with static and dynamic supply and demand analysis.

(vii) The cattle model consists of eight sectors, being the Farm, Feedlot, Abattoir, Other Meat Processing (OMP), Tannery, Wholesale, Retail and Export sectors. Each sector, excluding OMP, Tannery and Wholesale, are divided into more than one subsector. The sheep model does not include a feedlot sector.

The farm sector is the only sector which is regionally disaggregated. In all other sectors, regional differences are judged to be not great enough to warrant regional differentiation. The farm regions are based on the 13 ABARE Agricultural and Grazing Industry Survey Regions and AMLRDC's distinction between Northern and Southern Australia.

The feedlot and abattoir sectors are disaggregated into two subsectors based on export and domestic operations.

The retail sector is disaggregated according to type, being butchers and supermarkets. While it was originally considered that the food services industry should constitute a subsector, it was realised that it was impossible to measure the value added to meat in the subsector. Accordingly, the food service industry is treated as an "end user" and products flowing into this industry are treated as external outputs.

The export sector is disaggregated into two subsectors based on meat exports and live exports.

In the remaining three sectors, differences in operations were not judged great enough to warrant disaggregation into subsectors for the purposes of the model.

(viii) It is necessary to define the boundaries of the meat and livestock industry in order to distinguish:-

* inputs which are derived from external sources from inputs which are intermediate products brought forward from other sectors of the industry; and
* final outputs to external destinations from intermediate outputs which become inputs to downstream sectors.

Value-added is roughly equivalent to operating profit in industries where ownership is separated from labour. In the farm sector where owner-operators predominate, value-added includes both profit and the return to the owner-operator's labour input.

* Technical "Co-efficients" describe the physical product flow or transformations in the model by way of ratios (e.g. turnoff %, carcase yield, retail weight per kg of carcase weight, etc.).

* " Variable Costs" are directly attributable to a particular activity and vary in proportion to the level of production (e.g. packaging materials in an abattoir).

* "Fixed Costs" or "Overheads" do not vary in proportion to the level of production or throughput.

* The "Gross Margin" from a particular activity is the Gross Income less variable costs.

(xiv) The model describes and quantifies 15 and 13 intermediate products and 19 and 18 final products for the cattle and sheep industries respectively. These "products" are in most cases groups of similar products aggregated together. In modelling an industry of this complexity, it is difficult and possibly misleading to designate particular items as either products or by-products, the implication being that the latter are in some way incidental. The model therefore treats all but two products as co-products of the meat and livestock industry and follows all of them as far as possible down the production-processing-marketing pipeline. The two exceptions are milk and wool which are clearly the principal products in a number of farm regions. These two products are "sold" out of the model at the farm gate and subsequent value added to them is not counted a part of the value added to the meat and livestock industry.

## 2.3 DATA SOURCES

In line with the general "synthetic" approach secondary data were obtained from a wide variety of sources. In many areas the available secondary data were inadequate to create a clear picture of inputs and outputs and it was necessary to carry out supplementary studies. These supplementary studies were conducted by specialists with a detailed working knowledge of particular sectors or subsectors. Some knowledge gaps were identified and this highlights the need for research into some of the less well understood sectors of the industry, particularly those towards the end of the value chain (e.g. other meat processing, wholesale and retail). A listing of the main data sources by sector is given in Annex 4.

## 3.2 FINANCIAL SUMMARY

### 3.2.1 The Cattle Industry

Table 1 and Figure 3 show the main financial interactions within the eight sectors of the cattle and beef industry, and between the industry and its external environment. This table and figure show for each sector and for the total industry:-

(i) the value of inputs purchased by each sector from each other sector of the industry;
(ii) the value of inputs purchased by each sector from external sources;
(iii) total value of inputs purchased by each sector;
(iv) the value of outputs supplied from each sector to each other sector of the industry;
(v) the value of outputs supplied by each sector to external sources;
(vi) the total value of outputs generated by each sector; and
(vii) the value added for the cattle and beef industry.

TABLE 1 : CATTLE: INPUTS, OUTPUTS AND VALUE ADDED
($ million)

| OUTPUT FROM ($ MILLION) | INPUTS TO ($ MILLION) FARM | FEEDLOT | ABATTOIR | OMP | TANNERY | WHOLESALE | RETAIL | EXPORT | TOTAL TO OTHER SECTORS | EXTERNAL OUTPUTS | TOTAL OUTPUTS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FARM | 0 | 295 | 2979 | 0 | 0 | 0 | 0 | 42 | 3317 | 1619 | 4936 |
| FEEDLOT | 0 | 0 | 480 | 0 | 0 | 0 | 0 | 0 | 480 | 7 | 486 |
| ABATTOIR | 0 | 0 | 0 | 264 | 357 | 1228 | 478 | 2066 | 4392 | 191 | 4583 |
| OMP | 0 | 0 | 0 | 0 | 0 | 0 | 52 | 0 | 52 | 481 | 533 |
| TANNERY | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 495 | 495 |
| WHOLESALE | 0 | 0 | 0 | 0 | 0 | 0 | 1229 | 0 | 1229 | 339 | 1568 |
| RETAIL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3470 | 3470 |
| EXPORT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2511 | 2511 |
| TOTAL FROM OTHER SECTORS | 0 | 295 | 3459 | 264 | 357 | 1228 | 1759 | 2108 | 9469 | 9112 | 18582 |
| EXTERNAL INPUTS | 2843 | 109 | 1036 | 150 | 96 | 282 | 1542 | 375 | 6434 | | |
| TOTAL INPUTS | 2843 | 404 | 4495 | 414 | 453 | 1510 | 3301 | 2483 | 15903 | | |
| VALUE ADDED | 2093 | 82 | 88 | 119 | 41 | 58 | 169 | 28 | 2679 | | |

| Sector | Value Added ($ m) | % of Total | $ per Head of Cattle | $ per Head Turned Off |
|---|---|---|---|---|
| Farm | 2,093 | 78.3 | 94.50 | 265.60 |
| Feedlot | 82 | 3.1 | 3.70 | 10.41 |
| Abattoir | 88 | 3.2 | 3.98 | 11.17 |
| OMP | 119 | 4.4 | 5.38 | 15.10 |
| Tannery | 41 | 1.5 | 1.85 | 5.20 |
| Wholesale | 58 | 2.2 | 2.62 | 7.36 |
| Retail | 169 | 6.3 | 7.63 | 21.45 |
| Export | 28 | 1.0 | 1.26 | 3.55 |
| Total | 2,679 | 100.0 | 120.92 | 339.84 |

The external costs (i.e. excluding the cost of inputs from other sectors of the cattle industry) incurred in each sector are estimated as follows:-

| Sector | External Costs ($ m) | % of Total Industry Costs | $ per Head of Cattle | $ per Head Turned Off | % of Costs Which Are External |
|---|---|---|---|---|---|
| Farm | 2,843 | 44.2 | 128.42 | 360.80 | 100 |
| Feedlot | 109 | 1.7 | 4.92 | 13.83 | 27 |
| Abattoir | 1,036 | 16.1 | 47.02 | 131.47 | 23 |
| OMP | 150 | 2.3 | 6.78 | 19.04 | 36 |
| Tannery | 96 | 1.5 | 4.34 | 12.18 | 21 |
| Wholesale | 282 | 4.4 | 12.74 | 35.79 | 19 |
| Retail | 1,542 | 24.0 | 69.65 | 195.69 | 47 |
| Export | 375 | 5.8 | 16.94 | 47.59 | 15 |
| Total | 6,434 | 100.0 | 290.63 | 816.50 | 40 |

The above indicates that the main flows of funds out of the cattle industry occur in the farm, abattoir and retail sectors. A cost reduction thrust should focus on these areas with large absolute external cost amounts, and on those sectors for which a high proportion of the costs are external. The latter include the farm, feedlot, OMP and retail sectors. Conversely the wholesale and export sectors obtain most of their inputs from within the industry and it will be more difficult to reduce costs without reducing revenue in the sectors which supply them.

The external revenue (i.e. excluding revenue generated by sales to other sectors) generated by each sector of the cattle industry is estimated as follows:-

mince and smallgoods also contribute a surprisingly high level of external revenue to the industry.

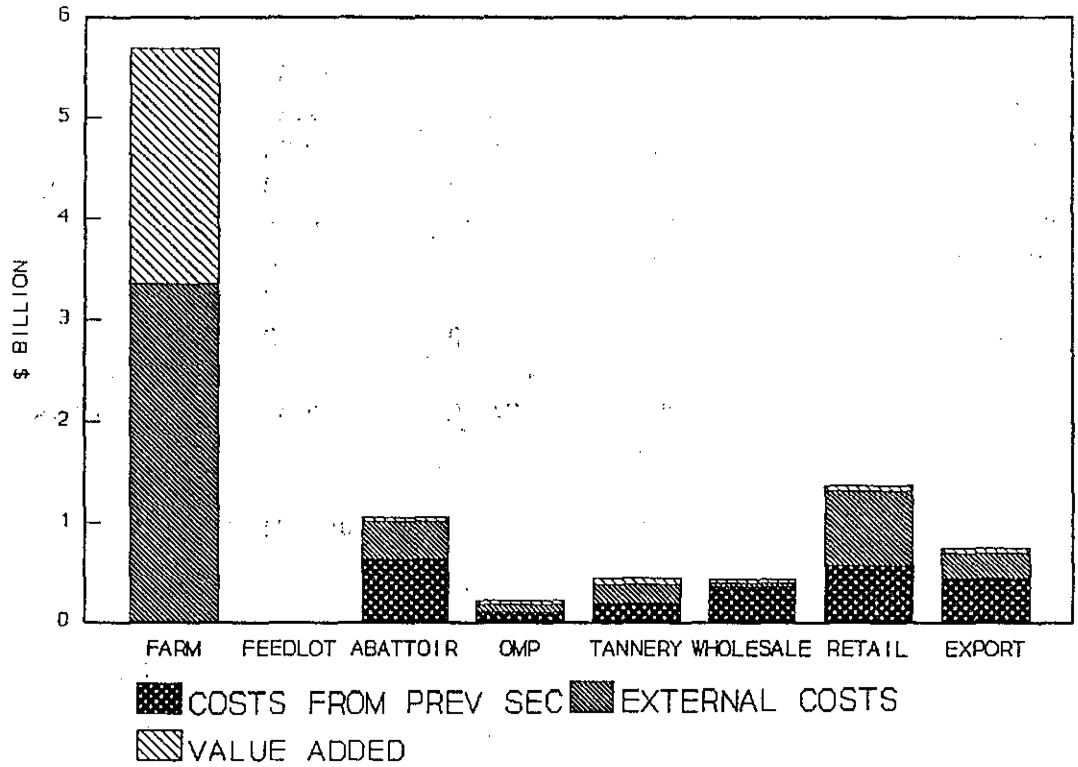
### 3.2.2 The Sheep Industry

Table 3 and Figure 4 show the main financial interactions within the eight sectors of the sheep industry and between the industry and its external environment. It shows the same information for sheep as is given in Table 1 for cattle.

TABLE 3 : SHEEP: INPUTS, OUTPUTS AND VALUE ADDED
($ million)

| OUTPUT FROM ($ MILLION) | INPUTS TO ($ MILLION) FARM | FEEDLOT | ABATTOIR | OMP | TANNERY | WHOLESALE | RETAIL | EXPORT | TOTAL TO OTHER SECTORS | EXTERNAL OUTPUTS | TOTAL OUTPUTS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FARM | 0 | 0 | 628 | 0 | 0 | 0 | 0 | 218 | 846 | 4834 | 5680 |
| FEEDLOT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ABATTOIR | 0 | 0 | 0 | 96 | 181 | 358 | 162 | 221 | 1018 | 32 | 1051 |
| OMP | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 0 | 17 | 191 | 208 |
| TANNERY | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 435 | 435 |
| WHOLESALE | 0 | 0 | 0 | 0 | 0 | 0 | 384 | 0 | 384 | 35 | 419 |
| RETAIL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1367 | 1367 |
| EXPORT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 743 | 743 |
| TOTAL FROM OTHER SECTORS | 0 | 0 | 628 | 96 | 181 | 358 | 563 | 439 | 2265 | 7637 | 9902 |
| EXTERNAL INPUTS | 3351 | 0 | 376 | 72 | 197 | 32 | 751 | 251 | 5032 | | |
| TOTAL INPUTS | 3351 | 0 | 1005 | 168 | 378 | 390 | 1314 | 691 | 7297 | | |
| VALUE ADDED | 2329 | 0 | 46 | 40 | 57 | 29 | 52 | 52 | 2605 | | |

FIGURE 4 : THE SHEEP VALUE CHAIN



| Sector | External Costs ($ m) | % of Total Industry Costs | $ per Head of Sheep | $ per Head Turned Off | % of Costs Which Are External |
|---|---|---|---|---|---|
| Farm (incl. wool) | 3,351 | 66.60 | 21.33 | 92.23 | 100.0 |
| Farm (excl. wool) | 503 | 17.22 | 3.20 | 13.84 | 100.0 |
| Abattoir | 376 | 7.50 | 2.39 | 10.35 | 38.0 |
| OMP | 72 | 1.40 | 0.45 | 1.98 | 49.0 |
| Tannery | 197 | 3.90 | 1.25 | 5.42 | 52.0 |
| Wholesale | 32 | 0.60 | 0.20 | 0.88 | 8.2 |
| Retail | 751 | 14.92 | 4.78 | 20.63 | 57.0 |
| Export | 251 | 5.00 | 1.60 | 6.91 | 36.0 |
| Total (incl. wool) | 5,032 | 100.00 | 32.03 | 138.50 | 69.0 |
| Total (excl. wool) | 2,184 | 43.70 | 13.90 | 60.11 | 49.0 |

As with cattle, the main flows of funds out of the sheep industry occur in the farm, retail and abattoir sectors. Compared with cattle, the sheep industry has a higher proportion of costs which are external (69% compared with 40%).

The external revenue (i.e. excluding revenue generated by sales to other sectors) generated by each sector of the sheep cattle industry is estimated as follows:-

| Sector | External Revenue ($ m) | % of Total Revenue | $ per Head of Sheep | $ per Head Turned Off | Revenue Which is External |
|---|---|---|---|---|---|
| Farm (incl. wool) | 4,834 | 63.30 | 30.78 | 133.10 | 85.0 |
| Farm (excl. wool) | - | - | - | - | - |
| Abattoir | 32 | 0.42 | 0.20 | 0.88 | 3.0 |
| OMP | 191 | 2.50 | 1.22 | 5.26 | 91.8 |
| Tannery | 435 | 5.70 | 2.77 | 11.97 | 100.0 |
| Wholesale | 35 | 0.46 | 0.22 | 0.96 | 8.4 |
| Retail | 1,367 | 17.90 | 8.70 | 37.63 | 100.0 |
| Export | 743 | 9.70 | 4.73 | 20.45 | 100.0 |
| Total (incl. wool) | 7,637 | 100.0 | 48.62 | 210.26 | 77.1 |
| Total (excl. wool) | 2,803 | 37.0 | 17.85 | 77.15 | 55.3 |

The contribution of different products to external revenue to the sheep industry is shown in Table 4.

## TABLE 5 : QUANTITY OF PHYSICAL OUTPUTS FROM EACH SECTOR TO OTHER SECTORS AND TO EXTERNAL DESTINATIONS : CATTLE INDUSTRY

| SECTOR | PRODUCT | UNIT | FEEDLOT | ABATTOIR | OMP | TANNERY | WHOLESALE | RETAIL | EXPORT | TOTAL OTHER SECTORS | EXTERNAL OUTPUTS | TOTAL OUTPUTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FARM | Bulls and Steers | '000 t DWT | | 951 | | | | | 12 | 963 | - | 963 |
| | Cows and Heifers | " | | 491 | | | | | 9 | 500 | - | 500 |
| | Calves | " | | 46 | | | | | | 46 | - | 46 |
| | Feeders Heavy | " | 80 | | | | | | | 80 | - | 80 |
| | Feeders Light | " | 50 | | | | | | | 50 | - | 50 |
| | Milk | ML | | | | | | | | | 6209 | 6209 |
| FEEDLOT | Export Lotfed | '000 t DWT | | 118 | | | | | | 118 | - | 118 |
| | Local Lotfed | " | | 73 | | | | | | 73 | - | 73 |
| | Manure | '000 t | | | | | | | | | 300 | 300 |
| ABATTOIR | Boneless Primals | '000 t | | | | | 120 | 53 | 203 | 376 | - | 376 |
| | Boneless Other | " | | | 87 | | | | 371 | 458 | - | 458 |
| | Carcases | " | | | | | 308 | 109 | 57 | 474 | - | 474 |
| | Offals | " | | | | | 1 | 0.5 | 32 | 34 | - | 34 |
| | Other By-products | " | | | 12 | | | | | 12 | - | 12 |
| | Cattle Hides | million pcs | | | | 7 | | | | 7 | - | 7 |
| | Calf Skins | " | | | | 1 | | | | 1 | - | 1 |
| | Rendered By-products | '000 t | | | | | | | | - | 546 | 546 |
| OMP | Sausages and Smallgoods | '000 t | | | | | | 21 | | 21 | - | 21 |
| | Pet Food | " | | | | | | | | - | 134 | 134 |
| | Emulsified Products | " | | | | | | | | - | 7 | 7 |
| | Hamburger Meat | " | | | | | | | | - | 28 | 28 |
| | All Other | " | | | | | | | | | 69 | 69 |
| TANNERY | Wet Blue Hides | '000 pcs | | | | | | | | - | 1978 | 1978 |
| | Finished Leather | " | | | | | | | | - | 1025 | 1025 |
| | Salted Calf Skins | " | | | | | | | | - | 1217 | 1217 |
| | Salted Cattle Hides | " | | | | | | | | | 3568 | 3568 |
| WHOLESALE | Boneless Primal | '000 t | | | | | | 100 | | 100 | - | 100 |
| | Carcases | " | | | | | | 241 | | 241 | - | 241 |
| | Offal | " | | | | | | 1 | | 1 | - | 1 |
| | Other Retail Meat | " | | | | | | 65 | | - | 65 | 65 |
| | Bones and Fat | " | | | | | | 24 | | - | 24 | 24 |
| RETAIL | Retail Cuts | '000 t | | | | | | | | - | 382 | 382 |
| | Sausages and Mince | " | | | | | | | | - | 155 | 155 |
| | Offals | " | | | | | | | | - | 2 | 2 |
| | Bones and Fat | " | | | | | | | | - | 19 | 19 |
| EXPORT | Boneless Primals | '000 t | | | | | | | | - | 202 | 202 |
| | Boneless Other | " | | | | | | | | - | 371 | 371 |
| | Carcases | " | | | | | | | | - | 57 | 57 |
| | Offals | " | | | | | | | | - | 32 | 32 |
| | Live Cattle | '000 t DWT | | | | | | | | - | 21 | 21 |

TABLE 7 : DESCRIPTION OF PRODUCT CATEGORIES INCLUDED IN CATTLE/BEEF MODEL

| | Description and Comments | Sector: Source(s) | Sector: Destination(s) |
|---|---|---|---|
| A. Intermediate Products | | | |
| * Bulls and Steers | Male cattle moved out of the farm sector. Excludes inter-farm movements within the farm sector. Average carcase weight specified separately for each of the 15 regions and range between 211 kg and 300 kg. | Farm | Abattoir<br>Export |
| * Cows and Heifers | Female cattle as above. Average carcase weight 200 kg. | Farm | Abattoir<br>Export |
| * Calves | Calves sold from farm sector. Mainly derived from dairy herds. Average carcase weight specified separately for each of the 15 regions and range between 21 kg and 78 kg. | Farm | Abattoir<br>Export |
| Heavy Feeders | Steers sold from the farm sector to feedlotters to be held on feed for about 125 days. Average carcase weight 246 kg at commencement of feeding. | Farm | Feedlot<br>Export |
| Light Feeders | Steers and heifers destined for feedlots producing beef for the domestic market. Average carcase weight 149 kg at commencement of feeding. Held on feed for about 80 days. | Farm | Feedlot |
| Feedlot Steers - Heavy | Heavy lot-fed steers destined for export meat markets (e.g. Japan). Average carcase weight 363 kg. | Feedlot | Abattoir |
| Feedlot Steers - Light | Lighter lot-fed steers and heifers destined for domestic retail markets. Average carcase weight 218 kg. | Feedlot | Abattoir |
| * Boneless Primals | Chilled or frozen boneless meat other than manufacturing grades. Destined for sale to the wholesale, retail and export sectors. | Abattoir | Wholesale<br>Retail<br>Export |
| * Other Boneless | Frozen boneless manufacturing grade beef mainly for export to USA. Some used for sausages, smallgoods and canned foods. | Abattoir | Export<br>OMP |
| * Carcases | Chilled or frozen beef carcases or quarters of various weights and grades. Move from the abattoir to butchers via wholesalers or directly to supermarkets. Some exported. | Abattoir<br>Wholesale | Wholesale<br>Retail<br>Export |
| * Offals | Composite product category comprising all edible offals destined for the wholesale-retail channel or to exporters. Components include hearts, kidneys, tails and tongues. | Abattoir<br>Wholesale | Wholesale<br>Retail<br>Export |

TABLE 7 : DESCRIPTION OF PRODUCT CATEGORIES INCLUDED IN CATTLE/BEEF MODEL (Cont'd.)

| | | Description and Comments | Sector | |
|---|---|---|---|---|
| | | | Source(s) | Destination(s) |
| | Sausages and Mince | Beef sausages and mince produced in butcher shops, supermarkets or the OMP sector and retailed through butcher shops or supermarkets. | Retail | External |
| * | Boneless Primals | Exports of boneless meat other than manufacturing grades. | Export | External |
| * | Other Boneless | Exports of boneless manufacturing grade beef. | Export | External |
| * | Carcases | Exports of beef carcases or quarters of various weights and grades. | Export | External |
| * | Offals | Exports of mixed beef offals. | Export | External |
| * | Live Cattle | Composite of bulls, steers, cows, heifers and calves exported for breeding and slaughter. | Export | External |

* Denotes products which are both intermediate and final products, i.e. they pass through more than one sector without transformation into other products.

TABLE 8 : DESCRIPTION OF PRODUCT CATEGORIES INCLUDED IN SHEEP MODEL (Cont'd.)

| | Description and Comments | Sector Source(s) | Sector Destination(s) |
|---|---|---|---|
| Pet Food | Mutton used in canned and other pet food products. | OMP | External |
| Canned Meats | Mutton used in canned meat products. | OMP | External |
| Wool-on Tanned Skins | Lamb and sheep skins tanned with wool-on. Destined for domestic or export market. | OMP | External |
| Salted Skins | Salted sheep and lamb skins exported for further processing. | Tannery | External |
| Dried Skins | Dried sheep and lamb skins exported for further processing. | Tannery | External |
| Other Retail - Carcases | Carcases provided by wholesalers to the food services industry including restaurants, institutions, etc.. | Wholesale | External |
| Other Retail - Offals | As above for offals. | Wholesale | External |
| Retail Cuts | Composite of table cuts, mainly lamb and some mutton, retailed by butchers and supermarkets. Excludes sausages, mince, offals, etc.. | Retail | External |
| Sausages and Mince | Sausages and mince containing mainly lamb and some mutton produced in butchers and supermarkets or the OMP sector sold in the retail sector. | Retail | External |
| Boneless Meat | Exports of boneless meat, nearly all mutton. | Export | External |
| Carcases | Exports of mutton and lamb carcases. | Export | External |
| Offal | Exports of offal. | Export | External |
| Live Sheep | Export of wethers and hoggets for slaughter and other sheep for breeding. | Export | External |

* Denotes products which are both intermediate and final products, i.e. they pass through more than one sector without transformation into other products.

# 4. PRIMARY PRODUCTION

## 4.1 THE FARM SECTOR

### 4.1.1 General

The farm sector is the most heterogenous of the eight sectors included in the model. The production process differs markedly between regions, and according to the balance between the beef cattle and dairy cattle population and between wool and prime lamb production. To allow the model to represent this diversity, the farm sector has been disaggregated into northern and southern subsectors (according to AMLRDC's north-south demarcation) and 15 regions (based on the 13 ABARE Agricultural and Grazing Industry Survey regions). Figure 5 shows the location of the 13 ABARE regions. ABARE region 8 has been divided into northern and southern portions, and ABARE region 7 has been divided into coastal and tablelands portions. Annex 3 shows the statistical areas included in each of the 15 model regions and the corresponding ABARE regions. The individual value-added modules reflecting each region in the cattle and sheep industry models are presented in Annexes 6 and 7 respectively.

### 4.1.2 Livestock Populations and Production

ABS farm census data for 31 March, 1988 and 1989 were used to compile livestock population data for the 15 model regions. These data are summarised in Tables 9 (cattle) and 10 (sheep) and presented in full detail in Annexes 6 and 7. Tables 11 (cattle) and 12 (sheep) show livestock turnoff data and milk or wool production by livestock category and subsector or region. Turnoff data refer to turnoff for slaughter of live export only. Movements between farms within or between regions are excluded. While these movements sum to zero for the total industry, this assumption tends to over-estimate production in fattening areas and under-estimate it in store-producing areas.

Cattle

The main conclusions which can be drawn from Tables 9 and 11 are:-

(i) Northern and Southern Australia have about the same number of total cattle and produce the same amount of beef, but turnoff number was much higher (4.6 million) in the south than the north (3.3 million).

(ii) About 90% of milk production comes from the south.

(iii) All of the northern regions except Northern Pastoral produced 8% or more of the total beef and the 4 main northern regions generated some 48% of total beef.

(iv) Four southern regions produced 11% or more of the total beef.

TABLE 9 : SUMMARY OF CATTLE POPULATION DATA IN VALUE CHAIN MODEL

| Subsector/Region | No. ('000 head) Beef Cattle | Dairy Cattle | Total Cattle | % Beef | % Dairy | Turnoff a/ No. '000 | % |
|---|---|---|---|---|---|---|---|
| Total | 19,574 | 2,564 | 22,138 | 88 | 12 | 7,880 | 36 |
| North | 10,651 | 318 | 10,970 | 97 | 3 | 3,315 | 30 |
| South | 8,923 | 2,245 | 11,168 | 79 | 21 | 4,565 | 41 |
| Western High Rainfall | 497 | 111 | 608 | 81 | 19 | 266 | 43 |
| Western Wheat Sheep | 178 | 2 | 180 | 99 | 1 | 84 | 47 |
| Western Pastoral | 241 | - | 241 | 100 | - | 59 | 24 |
| Tasmania | 417 | 135 | 551 | 75 | 25 | 225 | 41 |
| Southern High Rainfall | 2,164 | 1,090 | 3,254 | 66 | 34 | 1,340 | 41 |
| Southern Wheat Sheep | 1,847 | 555 | 2,402 | 76 | 24 | 1,073 | 44 |
| Southern Pastoral | 345 | 2 | 347 | 99 | 1 | 93 | 27 |
| Eastern High Rainfall T | 1,289 | 75 | 1,364 | 94 | 6 | 471 | 35 |
| Eastern High Rainfall C | 894 | 268 | 1,162 | 76 | 24 | 392 | 34 |
| Northern Wheat Sheep S | 1,051 | 8 | 1,058 | 99 | 1 | 564 | 53 |
| Northern Wheat Sheep N | 2,634 | 77 | 2,711 | 97 | 3 | 1,007 | 37 |
| North Eastern Mixed | 2,760 | 233 | 2,993 | 92 | 8 | 1,012 | 34 |
| North Eastern Pastoral | 1,628 | 5 | 1,633 | 99 | 1 | 519 | 32 |
| Central Pastoral | 2,759 | - | 2,759 | 100 | - | 587 | 21 |
| Northern Pastoral | 871 | 3 | 874 | 99 | 1 | 190 | 22 |

a/ Excludes inter-farm livestock movements within the farm sector. Includes live export.

TABLE 10 : SUMMARY OF SHEEP POPULATION DATA IN VALUE CHAIN MODEL

| Model/Subsector/Region | Total Sheep ('000) | % of Matings to Wool Breeds | Turnoff a/ No. '000 | % |
|---|---|---|---|---|
| Total | 156,968 | 74 | 36,319 | 23 |
| Western High Rainfall | 5,151 | 70 | 1,431 | 28 |
| Western Wheat Sheep | 27,768 | 93 | 4,701 | 17 |
| Western Pastoral | 2,601 | 100 | 198 | 8 |
| Tasmania | 4,840 | 70 | 1,174 | 24 |
| Southern High Rainfall | 25,328 | 63 | 7,200 | 28 |
| Southern Wheat Sheep | 45,579 | 63 | 13,345 | 29 |
| Southern Pastoral | 10,142 | 98 | 1,142 | 11 |
| Eastern High Rainfall T | 9,359 | 63 | 2,250 | 24 |
| Eastern High Rainfall C | 2,945 | 28 | 1,163 | 39 |
| Northern Wheat Sheep S | 8,630 | 76 | 1,927 | 22 |
| Northern Wheat Sheep N | 5,050 | 92 | 699 | 14 |
| North Eastern Mixed | 15 | 57 | 3 | 20 |
| North Eastern Pastoral | 5,119 | 99 | 627 | 12 |
| Central Pastoral | 4,439 | 99 | 459 | 11 |
| Northern Pastoral | 0 | 0 | 0 | 0 |

a/ Excludes inter-farm livestock movements within the farm sector. Includes live export.

(v) The main beef-producing regions in order of importance were:-

| | % of Total Beef |
|---|---|
| Northern Wheat Sheep - North | 16.3 |
| North Eastern Mixed | 15.2 |
| Southern High Rainfall | 12.0 |
| Southern Wheat Sheep | 11.3 |
| North Eastern Pastoral | 8.7 |
| Central Pastoral | 8.5 |

(vi) The main milk-producing regions in order of importance were:-

| | % of Total Milk |
|---|---|
| Southern High Rainfall | 44.5 |
| Southern Wheat Sheep | 22.0 |
| Eastern High Rainfall - Coast | 10.3 |
| North Eastern Mixed | 8.3 |
| Tasmania | 5.2 |

The north/south subdivision in the cattle farm sector demarcates two subsectors which are distinctly different in character. Whilst all breeding, trading, growing, fattening and dairy production enterprises are represented in both subsectors and almost all regions, the enterprise mix and production systems are quite different. In the north herds are larger; beef producers are more specialised; export markets are more important; and Bos indicus breeds predominate. In the south beef production tends to be part of a mixed farming system or is a by-product of dairying; places greater emphasis on the domestic market; and produces much lighter carcases from younger animals.

Sheep

The main conclusions which can be drawn from Tables 10 and 12 are:-

(i) Southern Australia is completely dominant in sheep and wool production. It generates 97% of the sheepmeat and 94% of the wool output.

(ii) The main prime lamb-producing regions in order of importance are:-

| | % of Total Lambs (No.) |
|---|---|
| Southern Wheat Sheep | 45 |
| Southern High Rainfall | 23 |
| Southern High Rainfall - Tablelands | 8 |
| Northern Wheat Sheep - South | 5 |
| Western Wheat Sheep | 4 |

(iii) Total sheepmeat production, including live exports, is concentrated in the following regions:-

TABLE 13 : EXTERNAL INPUTS TO THE FARM SECTOR
($ million)

| Cost Item | Cattle Total | Cattle North | Cattle South | Sheep Total |
|---|---|---|---|---|
| Pasture/Fertiliser | 215 | 37 | 178 | 298 |
| Fodder | 227 | 76 | 151 | 137 |
| Wages | 151 | 70 | 81 | 161 |
| Freight | 48 | 33 | 15 | 22 |
| Selling Costs | 126 | 58 | 69 | 85 |
| Shearing and Crutching | 0 | 0 | 0 | 355 |
| Wool - Deductions | 0 | 0 | 0 | 290 |
| Other Variable Costs | 1,318 | 495 | 823 | 1,400 |
| Interest | 443 | 162 | 280 | 376 |
| Overhead Costs | 315 | 115 | 201 | 228 |
| Total | 2,843 | 1,046 | 1,798 | 3,351 |

Livestock commission includes the cost of commission, insurance and handling charges on the sale of livestock, milk or wool. Interest includes the interest on debt and working capital. Levies on the sale of livestock are not included in this sector but in the abattoir sector, where the financial outflow occurs. Accordingly, livestock prices are net of levies. Overhead costs include expenses such as rates and taxes, water and drainage, insurance, postage, telephone, accountancy, farm consultancy, legal fees, office supplies and sundries.

In the cattle industry the farm sector purchased some $2.8 billion worth of external inputs which is almost three times the next largest sector and 50% of the total value of external cattle industry inputs. In the sheep industry farm sector external inputs were about $3.4 billion which is 67% of total sheep industry external inputs. Overall, the farm sector purchased a massive $6.2 billion in inputs for cattle and sheep production.

Cattle

The total value of outputs from the farm sector attributable to cattle was some $4.9 billion, of which $3.3 billion was livestock supplied to the abattoir sector and $1.6 billion was milk. About $295 million worth of livestock were sold to the feedlot sector and $70 million exported.

Table 14 shows the cattle farm sector's financial linkages on a regional basis. The main conclusions are:-

(i) Total inputs purchased by the farm sector in the south were $1.8 billion compared with $1.0 billion in the north.

(ii) In the cattle industry the main input purchasing regions in order of importance were:-

Sheep

The total value of outputs from the sheep industry was some $5.7 billion, of which $4.8 billion was wool and $0.8 billion was livestock. Table 15 shows the sheep farm sector's financial linkages on a regional basis. The main highlights are:-

(i) In the sheep industry the main input purchasing regions in order of importance were:-

| | % of Total Input Value |
|---|---|
| Southern Wheat Sheep | 30 |
| Western Wheat Sheep | 21 |
| Southern High Rainfall | 16 |
| Eastern High Rainfall - Tablelands | 6 |
| Southern Pastoral | 5 |
| | 78 |

(ii) In the sheep industry the value of outputs from different regions to other sectors of the industry (i.e. excluding the value of wool) was in order of importance:-

| | % of Total Output Value to Other Sectors |
|---|---|
| Southern Wheat Sheep | 39 |
| Southern High Rainfall | 21 |
| Western Wheat Sheep | 15 |
| Eastern High Rainfall - Tablelands | 5 |
| Northern Wheat Sheep - South | 4.5 |
| Western High Rainfall | 4.5 |
| | 89 |

TABLE 15 : SUMMARY OF FINANCIAL RESULTS FOR SHEEP FARM SECTOR
($ million)

| | No. of Sheep ('000) | Inputs From | | | Outputs To | | | Value Added | Value Added/ Head ($) |
|---|---|---|---|---|---|---|---|---|---|
| | | Other Sectors | External | Total | Other Sectors | External | Total | | |
| Total | 156,968 | - | 3,351 | 3,351 | 846 | 4,834 | 5,680 | 2,329 | 15 |
| Region | | | | | | | | | |
| Western High Rainfall | 5,151 | - | 117 | 117 | 38 | 174 | 211 | 95 | 18 |
| Western Wheat Sheep | 27,768 | - | 709 | 709 | 125 | 885 | 1,010 | 302 | 11 |
| Western Pastoral | 2,601 | - | 40 | 40 | 4 | 71 | 75 | 35 | 13 |
| Tasmania | 4,840 | - | 104 | 104 | 24 | 124 | 148 | 44 | 9 |
| Southern High Rainfall | 25,328 | - | 531 | 531 | 174 | 831 | 1,005 | 474 | 19 |
| Southern Wheat Sheep | 45,579 | - | 1,021 | 1,021 | 330 | 1,368 | 1,698 | 677 | 15 |
| Southern Pastoral | 10,142 | - | 177 | 177 | 17 | 285 | 302 | 125 | 12 |
| Eastern High Rainfall - Tablelands | 9,359 | - | 185 | 185 | 45 | 293 | 338 | 153 | 16 |
| Eastern High Rainfall - Coast | 2,945 | - | 58 | 58 | 25 | 89 | 113 | 55 | 19 |
| Northern Wheat Sheep - South | 8,630 | - | 171 | 171 | 38 | 274 | 312 | 142 | 16 |
| Northern Wheat Sheep - North | 5,050 | - | 100 | 100 | 12 | 156 | 168 | 68 | 13 |
| North Eastern Mixed | 15 | - | 0.2 | 0.2 | 0.1 | 0.3 | 0.3 | 0.1 | 7 |
| North Eastern Pastoral | 5,119 | - | 86 | 86 | 8 | 142 | 150 | 63 | 12 |
| Central Pastoral | 4,439 | - | 52 | 52 | 6 | 142 | 148 | 96 | 22 |
| Northern Pastoral | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

milk and milk production costs are excluded, total value added would fall to about $1,407 million or:-

$ 64 per head of cattle in the national herd,
$ 179 per head turned off, and
$ 85 per kg of dressed weight produced.

On a regional basis the main contributors to total value added in the cattle farm sector are:-

| | % of Total Value Added |
|---|---|
| Southern High Rainfall | 23 |
| North Eastern Mixed | 16 |
| Southern Wheat Sheep | 14 |
| Northern Wheat Sheep - North | 11 |
| Central Pastoral | 10 |
| | 74 |

Sheep

Table 15 shows that the sheep farm sector produces total value added of about $2.3 billion which is equal to:-

$ 15 per head of sheep in the national flock,
$ 64 per head turned off, and
$ 3.27 per kg of dressed weight produced.

After making an adjustment for the costs and revenue from wool production, total value added falls to about $347 million which is equal to:-

$2.20 per head of sheep in the national flock,
$9.60 per head turned off, and
$0.49 per kg of dressed weight produced.

On a regional basis the main contributors to total output in the sheep farm sector are:-

| | % of Total Value Added |
|---|---|
| Southern Wheat Sheep | 29 |
| Southern High Rainfall | 20 |
| Western Wheat Sheep | 13 |
| Eastern High Rainfall - Tablelands | 7 |
| Northern Wheat Sheep - South | 6 |
| | 75 |

TABLE 17 : EXTERNAL INPUTS TO THE CATTLE FEEDLOT SECTOR
($ million)

| Cost Item | Total | % of Total Cost | Export | Domestic |
|---|---|---|---|---|
| Processing - Intake | 1.75 | 1.6 | 0.56 | 1.19 |
| Processing - Exit | 0.24 | 0.2 | 0.07 | 0.16 |
| Feed | 91.62 | 83.9 | 59.70 | 31.92 |
| Grain Processing | 1.40 | 1.3 | 0.89 | 0.51 |
| Roughage Processing | 0.17 | 0.2 | 0.11 | 0.05 |
| Feeding Out | 2.39 | 2.2 | 1.52 | 0.87 |
| Surveillance | 1.71 | 1.6 | 0.81 | 0.89 |
| Repairs and Maintenance | 3.44 | 3.2 | 1.63 | 1.81 |
| Administration | 3.17 | 2.9 | 1.52 | 1.65 |
| Overheads | 3.26 | 3.0 | 2.37 | 0.89 |
| Total | 109.14 | 100.0 | 69.18 | 39.96 |

The two feedlot subsectors - domestic and export - represent commercial feedlots whose sole activity is fattening cattle with high turnovers. The sector does not attempt to reflect animals that are fattened in "opportunity feedlots". These are usually incorporated into a mix of farming activities and do not share the same cost structure as the model feedlots. The are unimportant overall.

Table 18 shows the physical and financial transactions by subsector, and demonstrates the importance of the export subsector. The export subsector used 64% of the total inputs by value, only 49% of the quantity of feeder stock, but 66% of the feed; and produced 62% of the total beef, which generated 67% of the total revenue. This suggests that R&D investments for the feedlot sector should mainly target the export subsector.

Table 18 also shows that the feedlot sector used about 700,000 tonnes of feed and therefore represents a significant customer of the agricultural industry.

TABLE 18 : SUMMARY OF PHYSICAL AND FINANCIAL RESULTS FOR CATTLE FEEDLOT SECTOR

A. PHYSICAL

| Subsector | Inputs | | | Outputs | | | | |
|---|---|---|---|---|---|---|---|---|
| | Feeders (No.'000) | Feeders ('000 t DWT) | Feed (t'000) | Local Lot Fed ('000) | Export Lot Fed ('000) | Dressed Weight ('000 t) Local | Export | Total |
| Total | 665 | 131 | 725 | 337 | 326 | 73 | 118 | 191 |
| Local Feedlot | 338 | 50 | 247 | 337 | - | 73 | - | 73 |
| Export Feedlot | 327 | 81 | 478 | - | 326 | - | 118 | 118 |

B. FINANCIAL ($ million)

| Subsector | Cattle Throughput ('000) | Inputs From Other Sectors | External | Total | Outputs To Other Sectors | External | Total | Value Added | Value Added/ Head ($) |
|---|---|---|---|---|---|---|---|---|---|
| Total | 665 | 295 | 109 | 404 | 480 | 7 | 487 | 82 | 123 |
| Local Feedlot | 338 | 107 | 40 | 147 | 160 | 2 | 162 | 15 | 44 |
| Export Feedlot | 327 | 188 | 69 | 257 | 320 | 5 | 325 | 67 | 205 |

# 5. PROCESSING SECTORS

## 5.1 THE ABATTOIR SECTOR

### 5.1.1 Introduction

Most abattoirs in Australia process both sheep and cattle, and a number process pigs as well. The exceptions are the large northern beef export abattoirs and a small number of sheep - only abattoirs in south-eastern Australia. The value chain model requires separate estimation of the costs and returns for processing sheep and cattle. Sheep slaughtering and cattle slaughtering are therefore analysed as separate activities even though they are often carried out in the same establishment.

The abattoir sector experiences widely fluctuating fortunes depending on livestock and meat price relativities. The model provides a picture of the situation in 1987/88 - 1988/89 which is not necessarily representative of the total industry situation over a longer period.

There are three standards of abattoirs processing livestock for human consumption:-

(i) Export abattoirs, licensed and supervised by the Australian Quarantine Inspection Service (AQIS) of the Commonwealth Department of Primary Industry and Energy (DPIE). Export abattoirs are automatically approved to supply meat to the local trade in all States.

(ii) Local abattoirs, constructed in accordance with the Australian Code of Practice for Construction and Equipment of Abattoirs and operated under the supervision of meat inspectors employed by the various State authorities. Local abattoirs complying with the Code are registered as Approved Interstate Trading Establishments and are free to trade in all States. The introduction of the Approved Interstate Trading licence is a recent development, having been introduced in 1989.

(iii) Local abattoirs approved and licensed by the State authorities to process livestock for local consumption only.

### 5.1.2 Cattle Abattoirs

The cattle abattoir sector can conveniently be divided into two subsectors for analytical purposes - cattle export abattoirs and mixed domestic beef/sheep abattoirs. The small local abattoirs are not significant enough in total throughput to warrant inclusion in the cattle model. The sheep component of the mixed beef/sheep abattoirs is discussed separately under the sheep model.

Export Establishments Processing Cattle Only

Almost all export establishments use on-the-rail dressing systems, with the hide being removed by means of a mechanical hide puller, and employees working from fixed positions along the length of the chain. The type and number of hide pullers, the arrangement of associated equipment, and the number of slaughtermen that can be accommodated on the chain, determines the production rate of the plant.

External Inputs

Table 19 illustrates the break down of external costs for the two abattoirs.

Labour costs include manning for yards, slaughter floor, boning room, by-product handling, administrative duties, etc.. Along with differences in throughput, the higher labour cost in export abattoirs reflects the higher proportion of meat boned-out and packaged. Packaging costs include materials used in the export of primal and other boneless cuts, meat meal, other by-products, offals and local meat. Payments for services represent fuel, electricity and water. AQIS fees represent meat inspection services. Consumables reflect costs of clothing, knives, etc., while general administration expenses cover advertising, accountancy, insurance and other overheads.

TABLE 19 : EXTERNAL INPUTS TO THE CATTLE ABATTOIR SECTOR
($ million)

| Cost Item | Total | % of Total Cost | Domestic | % of Total Domestic Cost | Export | % of Total Export Cost |
|---|---|---|---|---|---|---|
| Labour | 599.2 | 58 | 150.2 | 59 | 449.1 | 57 |
| Packaging | 110.8 | 10 | 3.5 | 1 | 107.4 | 13 |
| Services | 57.9 | 6 | 16.6 | 6 | 41.3 | 5 |
| AQIS | 41.2 | 4 | 15.3 | 6 | 26.0 | 3 |
| AMLC | 99.7 | 10 | 32.4 | 13 | 67.3 | 9 |
| Interest - Working Capital | 13.7 | 1 | 3.8 | 1 | 9.9 | 1 |
| Consumables | 9.8 | 1 | 2.7 | 1 | 7.1 | 1 |
| Repairs and Maintenance | 68.0 | 7 | 21.4 | 8 | 46.6 | 6 |
| General Administration | 28.0 | 3 | 7.0 | 3 | 21.2 | 3 |
| Interest - Debt | 7.2 | 1 | 2.9 | 1 | 4.4 | 1 |
| Total | 1035.9 | 100 | 255.6 | 100 | 780.3 | 100 |

Linkages with Other Sectors

Tables 31, 32 and 8 in Annex 6 show in detail the inputs and outputs for the export beef abattoirs and the beef component of domestic beef/sheep abattoirs, and for the total sector. The total sector inputs and outputs are consolidated in Tables 1 and 2 and show very strong forward and backward linkages with the other industry sectors:-

(i) The cattle abattoir sector supplies some $4.6 billion in total outputs of which 96% passes forward to other sectors where further value is added. The value of products moving forward to other sectors is:-

$ 264 million to OMP,
$ 357 million to tanneries,
$1,228 million to wholesalers,
$ 478 million to retailers, and
$2,066 million to exporters.

(i) External costs (i.e. excluding livestock) per head processed are estimated to be about $165 for export abattoirs and about $84 for domestic abattoirs. This difference reflects the labour and packing materials used in boning operations, and the large proportion of calves in domestic abattoir throughput.

(ii) After crediting the value of by-products, the cost of processing falls to about $43 in domestic abattoirs and $56 in export abattoirs. This implies by-product recovery of about $41 per head for domestic cattle and $110 per head for export cattle.

Value Added

Total value added in the cattle abattoir sector is estimated to be about $88 million. This reflects the generally low margins prevailing in the industry, and the reason behind its extensive rationalisation in recent years. Costs, revenues and value added per kg of carcase weight processed are estimated to be:-

| | | $/kg dwt |
|---|---|---|
| Costs | - livestock | 2.06 |
| | - other costs | 0.62 |
| | - total costs | 2.68 |
| Revenue | - meat and offals | 2.39 |
| | - by-products | 0.34 |
| | - total revenue | 2.73 |
| Net Value Added | | 0.05 |

Very small movements in livestock or meat prices have a big impact on net value added in the abattoir sector. For example, an increase of $11 per head in cattle prices without a proportionate increase in product prices would eliminate this 5 cents/kg margin completely, and an $11 decrease would double it. Since short-term fluctuations of this magnitude are commonplace, and much larger fluctuations occur over longer periods, investment in the beef abattoir sector is obviously highly risky. Whilst average returns may be reasonable in the long run, very substantial financial resources are required to sustain operations during periods of low or negative returns.

### 5.1.3 Sheep Abattoirs

Almost all sheep are slaughtered in abattoirs which also process cattle. There are only four establishments which process sheep only and the current process involved is not significantly different to the sheep component of mixed abattoirs. Sheep processing costs up to the point of dressed carcase are similar across a range of abattoir types. The major cost variations depend on whether the abattoir produces mainly carcases for the domestic trade or carries out a significant proportion of boning operations for export. The sheep abattoir sector therefore includes two subsectors. The sheep abattoir model described as "mixed export" is assumed to bone out about 60% of carcases, whereas the "mixed domestic" sheep abattoir processes mainly lambs and only bones out about 5% of carcases. Over the entire sheep and lamb slaughtering sector only about 31% of animals slaughtered are boned out. The two models therefore represent the two extremes of the activity range, and in reality there are intermediate situations.

Details on each cost item are the same as those used in the beef abattoir model explained in Section 5.1.2.

Linkages With Other Sectors

Tables 26, 27 and 5 in Annex 7 show in detail the inputs and outputs for the export and domestic sheep abattoirs and for the total sheep slaughtering sector. The total sector inputs and outputs are consolidated in Tables 3 and 6 and show strong interdependence with other sectors of the sheep industry.

(i) The sheep abattoir sector generates about $1.05 billion in total outputs of which 97% passes forward to other sectors where further value is added. The value of products moving forward to other sectors is:-

$ 96 million to OMP,
$181 million to tanneries,
$358 million to wholesalers,
$162 million to retailers, and
$221 million to exporters.

(ii) The physical inputs and outputs include[1]:-

| Inputs | Outputs |
|---|---|
| 554,814 t dwt of livestock | 104,126 t of boneless meat |
| | 347,632 t of sheep/lamb carcases |
| | 16,668 t of sheep offals |
| | 27,741 t of other by-products |
| | 75,264 t of rendered by-products |
| | 16.8 million lamb skins |
| | 13.2 million sheep skins |

Table 22 presents physical and financial transactions by subsector and reveal some significant differences between the two sheep abattoir models. In particular:-

(i) External costs (i.e. excluding livestock) per head processed are estimated to be about $14.89 for export sheep abattoirs and $10.33 for the domestic abattoir model. This difference is due to the boning room costs in the export operations.

(ii) After crediting the value of skins and by-products, the average cost of processing sheep falls to about $7.58 for export sheep abattoirs and $3.44 for the domestic model. This implies by-product recovery of $7.31 per head for export abattoirs and $6.89 for domestic.

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1 Outputs are greater than inputs in terms of weight because livestock inputs are specified as dressed weights. In fact, livestock enter the abattoir as liveweights with the difference in weight contributing to offals and by-products as outputs.

"other by-products" (refer Table 7 for the composition of other by-products). Table 24 shows that total outputs from the sector are valued at about $533 million and consist of:-

| | Tonnes | $ Million |
|---|---|---|
| Pet food | 133,730 | 108 |
| Sausages and smallgoods | 28,161 | 71 |
| Hamburger meat | 28,433 | 87 |
| All other[1] | 68,676 | 267 |
| Total | 258,825 | 533 |

TABLE 24 : SUMMARY OF PHYSICAL AND FINANCIAL RESULTS FOR CATTLE OTHER MEAT PROCESSING SECTOR

A. PHYSICAL

| | Inputs (t) | Outputs (t): Sausages | Pet Food | Emulsified Products | Hamburger Meat | All Other | |
|---|---|---|---|---|---|---|---|
| Boneless Beef | 87,486 | 12,598 | 59,840 | 3,412 | 28,433 | 68,676 | |
| Other By-Products | 27,883 | 8,170 | 73,890 | 3,987 | - | - | |
| Total | 115,369 | 20,766 | 133,730 | 7,395 | 28,433 | 68,676 | |
| | | Product Conversion Factors (%)a/ | | | | | Total |
| Boneless Beef | | 14.4 | 68.4 | 3.9 | 32.5 | 78.5 | 197.6 |
| Other By-Products | | 29.3 | 26.5 | 14.3 | - | - | 308.3 |

B. FINANCIAL ($ million)

| Inputs From: Other Sectors | External | Total | Outputs To: Other Sectors | External | Total | Value Added |
|---|---|---|---|---|---|---|
| 264 | 150 | 414 | 52 | 481 | 533 | 119 |

a/ Addition of conversion factors results in a total greater than 100% due to the use of extenders and other additives in outputs.

## Sheep

Table 25 shows that the sheep OMP sector purchased about $96 million worth of sheepmeat and sheepmeat by-products from the abattoir sector. This represents 9% of sheep abattoir output, and consisted of about 47,000 tonnes of boneless mutton and 10,000 tonnes of offal. Total outputs from the sheep OMP sector are valued at about $208 million and consist of:-

1 All other includes continental goods; corned, salted and roast beef; meat pies; and canned meat products.

| | Tonnes | $ Million |
|---|---|---|
| Sausages and other emulsified goods | 34,398 | 87 |
| Pet food | 70,660 | 59 |
| Other products[1] | 23,761 | 62 |
| Total | 137,184 | 208 |

TABLE 25 : SUMMARY OF PHYSICAL AND FINANCIAL RESULTS FOR SHEEP OTHER MEAT PROCESSING SECTOR

A. PHYSICAL

| | Inputs (t) | Outputs (t) Sausages | Pet Food | Emulsified Products | Other Products | |
|---|---|---|---|---|---|---|
| Boneless Mutton | 46,773 | 5,893 | 66,418 | 15,856 | 23,761 | |
| Offals | 9,832 | 688 | 4,129 | 11,602 | - | |
| Other By-Products | 285 | - | 114 | 359 | - | |
| Total | 56,890 | 6,581 | 70,660 | 27,817 | 23,761 | |
| | | Product Conversion Factors (%)[a/] | | | | Total |
| Boneless Mutton | | 12.6 | 142 | 33.9 | 50.8 | 239 |
| Offals | | 7.0 | 42 | 118 | - | 167 |
| Other By-Products | | - | 40 | 126 | - | 166 |

B. FINANCIAL ($ million)

| Inputs From: Other Sectors | External | Total | Outputs To: Other Sectors | External | Total | Value Added |
|---|---|---|---|---|---|---|
| 96 | 72 | 168 | 17 | 191 | 208 | 40 |

a/ Addition of conversion factors results in a total greater than 100% due to the use of extenders and other additives in outputs.

### 5.2.3 Value Added

The shortage of reliable data on the OMP sector, the diversity of meat and non-meat ingredients used, and the necessarily large number of assumptions and guesstimates, makes the estimation of value added in this sector less reliable than for some of the other sectors. However, it can be confidently concluded that OMP is currently one of the least important of the eight industry sectors due to its small absolute size, and lack of growth potential in its present form. It is essentially a salvaging operation which converts otherwise unsaleable material into marketable products, albeit low value ones. The development of new high value processed meat products and packaging systems is required to add more value and allow the use of better quality raw material.

1 Includes canned meats; continental products; canned, salted and roast meats; and meat pies.

Only about 13% of hides are processed to finished leather stage - the remainder are exported un-processed or semi-processed to the wet blue stage and then exported. This reflects the relatively unattractive returns from producing finished bovine leathers in Australia. At least one large tannery has recently discontinued finished leather production after more than 100 years and will concentrate entirely on semi-processed products from now on.

Table 27 shows that tanners purchase almost all of the bovine skins produced in the abattoir sector at a total cost of about $357 million. All sales are external and total about $495 million which represents some 7% of external revenue generated by the cattle and beef industry.

TABLE 27 : SUMMARY OF PHYSICAL AND FINANCIAL RESULTS FOR CATTLE TANNERY SECTOR

A. PHYSICAL

| | Inputs ('000 hides) | Outputs: Wet Blue Hides ('000) | Outputs: Finished Leather ('000) | Outputs: Salted Calf Skins ('000) | Outputs: Salted Hides ('000) | Outputs: Total Pieces ('000) |
|---|---|---|---|---|---|---|
| Raw Cattle Hides | 6,570 | 1,978 | 1,025 | - | 3,568 | 6,570 |
| Raw Calf Skins | 1,217 | - | - | 1,217 | - | 1,217 |
| Total | 7,787 | 1,978 | 1,025 | 1,217 | 3,568 | 7,787 |
| | | Product Conversion Factors (%) | | | | |
| Raw Cattle Hides | | 30.1 | 15.6 | - | 54.3 | 100.0 |
| Raw Calf Skins | | - | - | 100.0 | - | 100.0 |

B. FINANCIAL ($ million)

| Inputs From: Other Sectors | Inputs From: External | Inputs From: Total | Outputs To: Other Sectors | Outputs To: External | Outputs To: Total | Value Added |
|---|---|---|---|---|---|---|
| 357 | 96 | 453 | - | 495 | 495 | 41 |

The bovine tannery sector generates net added value of about $41 million in the process of transforming raw hides worth $357 million to manufactured products worth $494 million (38% increase). If finished leather production could be made more commercially attractive, the sector has the potential to increase gross revenue to about $991 million which is 177% of raw material value.

### 5.3.3 Sheep Skins

The utilisation of Australian sheepskins has historically been based on the wool component of the skin. Currently the vast majority of skins are exported in the dried or salted condition to overseas countries where the prime objective is the wool recovery. The processing of sheep and lamb skins can be segregated into six basic categories:-

(i) Air Dried.
(ii) Drum Salted.
(iii) Pickled.

## TABLE 29 : SUMMARY OF PHYSICAL AND FINANCIAL RESULTS FOR SHEEP TANNERY SECTOR

A. PHYSICAL

| | Inputs ('000 skins) | Outputs: Wool on Tanned Skins ('000) | Salted Skins ('000) | Dried Skins ('000) | Total Pieces ('000) |
|---|---|---|---|---|---|
| Sheep skins | 13,174 | 2,635 | 5,032 | 5,507 | 13,174 |
| Lamb skins | 16,843 | 387 | 3,571 | 12,885 | 16,843 |
| Total | 30,017 | 3,022 | 8,603 | 18,391 | 30,017 |
| | | Product Conversion Factors (%) | | | |
| Sheep skins | | 20.0 | 38.2 | 41.8 | 100.0 |
| Lamb skins | | 2.3 | 21.2 | 76.5 | 100.0 |

B. FINANCIAL ($ million)

| Inputs From: Other Sectors | External | Total | Outputs To: Other Sectors | External | Total | Value Added |
|---|---|---|---|---|---|---|
| 181 | 197 | 378 | 0 | 435 | 435 | 57 |

## TABLE 30 : SUMMARY OF PHYSICAL AND FINANCIAL RESULTS FOR THE BEEF WHOLESALE SECTOR

A. PHYSICAL

| | Inputs (t) | Outputs (t) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Boneless Primal | Carcases | Offal | Other Retail Meat | Bones and Fat | Total Outputs | Total Outputs (t carcase equivalent) |
| Boneless Primals | 120,891 | 56,214 | - | - | 64,701 | - | 120,891 | 185,986 |
| Carcases | 308,834 | 43,959 | 241,169 | - | - | 23,780 | 308,834 | 308,834 |
| Offals | 956 | - | - | 956 | - | - | 956 | - |
| Total | 430,681 | 100,173 | 241,169 | 956 | 64,701 | 23,780 | 430,681 | 494,820 |
| | | Product Conversion Factors (%) | | | | | | |
| Boneless Primals | | 46.5 | - | - | 53.5 | - | | |
| Carcases | | 14.2 | 78.1 | - | - | 7.7 | | |
| Offals | | - | - | 100 | - | - | | |

B. FINANCIAL ($ million)

| Inputs From | | | Outputs To | | | |
|---|---|---|---|---|---|---|
| Other Sectors | External | Total | Other Sectors | External | Total | Value Added |
| 1,228 | 282 | 1,510 | 1,229 | 339 | 1,568 | 58 |

## TABLE 31 : SUMMARY OF PHYSICAL AND FINANCIAL RESULTS FOR THE SHEEP WHOLESALE SECTOR

A. PHYSICAL

| | Inputs (t) | Outputs (t) | | | | | |
|---|---|---|---|---|---|---|---|
| | | Retail Boneless | Retail Carcases | Retail Offals | Other Retail Meat | Bones and Fat | Total Outputs |
| Boneless Meat | 3,175 | 3,175 | - | - | - | - | 3,175 |
| Carcases | 198,327 | 13,090 | 150,530 | - | 13,286 | 21,618 | 198,524 |
| Offals | 1,943 | - | - | 1,943 | - | - | 1,943 |
| Total | 203,444 | 16,340 | 150,530 | 1,943 | 13,286 | 21,618 | 203,642 |
| | | Product Conversion Factors (%) | | | | | |
| Boneless Meat | | 100.0 | - | - | - | - | |
| Carcases | | 6.6 | 75.9 | - | 6.7 | 10.9 | |
| Offals | | - | - | 100.0 | - | - | |

B. FINANCIAL ($ million)

| Inputs From | | | Outputs To | | | |
|---|---|---|---|---|---|---|
| Other Sectors | External | Total | Other Sectors | External | Total | Value Added |
| 358 | 32 | 390 | 386 | 35 | 420 | 30 |

## TABLE 32 : SUMMARY OF PHYSICAL AND FINANCIAL RESULTS FOR THE BEEF RETAIL SECTOR

A. PHYSICAL

| | Inputs (t) | Outputs (t) Retail Cuts | Sausages & Mince | Offals | Bones & Fat |
|---|---|---|---|---|---|
| **Total Sector** | | | | | |
| Boneless Primals | 153,627 ) | 381,989 | - | - | - |
| Carcases | 349,655 ) | | 154,767 | - | - |
| Offals | 1,510 | - | - | 1,510 | 18,881 |
| Sausages | 20,749 | - | - | - | - |
| Total | 525,540 | | | | |
| **Butchers** | | | | | |
| Boneless Primals | 108,120 ) | 287,964 | - | - | - |
| Carcases | 275,171 ) | | 113,019 | - | 14,859 |
| Offals | 956 | - | - | 956 | - |
| Total | 384,248 | 287,964 | 113,019 | 956 | 14,859 |
| **Supermarkets** | | | | | |
| Boneless Primals | 45,506 ) | 94,024 | - | - | - |
| Carcases | 74,484 ) | | 41,748 | 553 | 4,022 |
| Offals | 553 | - | - | - | - |
| Sausages | 20,749 | - | - | - | - |
| Total | 141,292 | 94,024 | 41,748 | 553 | 4,022 |
| | | Output Conversion Factors (%) | | | |
| Boneless Primals | | 99.0 | - | - | - |
| Carcases | | 65.8 | 28.8 | - | 5.4 |
| Offals | | - | - | 100.0 | - |
| Sausages | | - | 98.0 | - | - |

B. FINANCIAL ($ million)

| | Inputs From: Other Sectors | External | Total | Outputs To: Other Sectors | External | Total | Value Added |
|---|---|---|---|---|---|---|---|
| Butchers | 1,294 | 1,148 | 2,442 | - | 2,603 | 2,603 | 161 |
| Supermarkets | 465 | 394 | 859 | - | 867 | 867 | 8 |
| Total | 1,759 | 1,542 | 3,301 | - | 3,470 | 3,470 | 169 |

Total supermarket beef sales of about $870 million comprise:-

| | Supermarket Total Beef Product Sales (Tonnes) | ($ million) |
|---|---|---|
| Retail Cuts | 94,024 | 724 |
| Sausages, Mince, etc. | 41,748 | 141 |
| Offals | 553 | 2 |
| Bones and Fat | 4,022 | 0.3 |
| Total | 140,347 | $867 |

Retailing is a high value-added activity and the trend towards selling more elaborately prepared items suggests that value added will increase in the future. The gross value increase represents 101%, 86% and 97% respectively of the value of beef purchased by butchers, supermarkets and the total sector. Total retail sales of $3.5 billion are the channel through which 46% of the beef industry's non-milk external revenue is obtained.

## TABLE 34 : SUMMARY OF PHYSICAL AND FINANCIAL RESULTS FOR THE SHEEP RETAIL SECTOR

A. PHYSICAL

| | Inputs (t) | Outputs (t) Retail Cuts | Sausages & Mince | Offals | Bones & Fat |
|---|---|---|---|---|---|
| Total Sector | | | | | |
| Boneless Meat | 16,340 | 16,177 | - | - | - |
| Carcases | 244,340 | 186,920 | 76,794 | - | 3,665 |
| Offals | 1,458 | - | - | 1,429 | - |
| Sausages | 6,582 | - | 6,516 | - | - |
| Total | 268,720 | 203,097 | 83,310 | 1,429 | 3,665 |
| Butchers | | | | | |
| Boneless Meat | 16,340 | 16,177 | - | - | - |
| Carcases | 153,276 | 117,256 | 48,173 | - | 2,299 |
| Offals | 972 | - | - | 953 | - |
| Total | 170,588 | 133,433 | 48,173 | 953 | 2,299 |
| Supermarkets | | | | | |
| Carcases | 91,064 | 69,664 | 28,621 | - | 1,366 |
| Offals | 486 | - | - | 476 | - |
| Sausages | 6,582 | - | 6,516 | - | - |
| Total | 98,132 | 69,664 | 35,137 | 476 | 1,366 |
| | | Output Conversion Factors (%) | | | |
| Boneless Meat | | 99.0 | - | - | - |
| Carcases | | 76.5 | 22.0 | - | - |
| Offals | | - | - | 98.0 | 1.5 |
| Sausages | | - | 99.0 | - | - |

B. FINANCIAL ($ million)

| | Inputs From Other Sectors | External | Total | Outputs To Other Sectors | External | Total | Value Added |
|---|---|---|---|---|---|---|---|
| Butchers | 391 | 440 | 831 | - | 876 | 876 | 46 |
| Supermarkets | 174 | 311 | 485 | - | 490 | 490 | 5 |
| Total | 565 | 751 | 1,316 | - | 1,366 | 1,366 | 51 |

Total sheepmeat sales from the supermarket subsector of about $490 million comprise:-

| | Supermarket Total Sheepmeat Sales (Tonnes) | ($ million) |
|---|---|---|
| Retail Cuts | 69,664 | 371 |
| Sausages and Mince | 35,137 | 118 |
| Offals | 476 | 1 |
| Bones and Fat | 1,366 | 0.1 |
| Total | 106,643 | 490 |

The gross value added through sheepmeat retailing represents 124%, 182% and 142% respectively of sheepmeat purchased by butchers, supermarkets and the total sector. Total retail sales of $1.4 billion are the channel through which 49% of the sheep industry's non-wool external revenue is obtained.

The export sector incorporates all activities in the movement of meat and livestock from abattoir or farm respectively to the point where they are unloaded at overseas destinations. At this point ownership is assumed to pass to foreign entities (at the CIF value) and the goods are considered to have left the sector.

It is recognised that this is a simplification of the true picture. Meat or livestock may change hands several times between the abattoir or farm and the point of overseas delivery. In other cases the abattoir sector retains ownership up to the point of delivery. In some cases Australian-owned entities or joint ventures may add further value by processing and/or distribution in overseas markets.

There are two subsectors covering meat and live animals respectively. Meat exports are by far the most important and generate 97% of gross export revenue for cattle, 40% for sheep, and 84% overall.

External Inputs

Table 36 shows the breakdown of external costs in the cattle and sheep export sector.

TABLE 36 : EXTERNAL INPUTS TO THE EXPORT SECTOR
($ million)

| Cost Item | Meat Export | | Live Export | |
|---|---|---|---|---|
| | Cattle | Sheep | Cattle | Sheep |
| Freight and Handling | 7.2 | 6.9 | 1.6 | 18.9 |
| Insurance | 9.1 | 0.9 | 1.1 | 10.0 |
| Shipping Costs - Boneless | 223.9 | 22.8 | - | - |
| Shipping Costs - Carcases | 38.5 | 36.0 | - | - |
| Shipping Costs - Live | - | - | 18.3 | 123.0 |
| Finance | 24.8 | 4.6 | 0.6 | 2.8 |
| Levies/Quarantine | 19.8 | 3.4 | 3.1 | 2.1 |
| Commission | 26.5 | 3.4 | - | - |
| Feed | - | - | 0.8 | 16.3 |
| Total | 350.0 | 78.2 | 25.5 | 173.1 |

### 6.3.2 Live Cattle and Beef

The export orientation of the Australian beef industry is highlighted by the fact that export revenue was 34% of total industry revenue (excluding milk) and 40% of total beef revenue.

Live Cattle

This subsector handles about 90,000 cattle per annum (1.1% of turnoff) of which about half are cows and heifers for breeding, and half are male stock for slaughter. The main destinations are in Asia. Average CIF value per head is estimated at about $790, yielding total revenue of about $71 million. Total costs are around $68 million of which a little more than half represent livestock purchases. Amongst other costs, to entities outside Australia, either through foreign ownership of the exporting companies or "exporting" profits to low tax countries.

The live sheep subsector handles about 6 million sheep annually (21% of turnoff) of which most are shorn Merino wethers for the Middle East. Average CIF values are estimated at $70 per head yielding total revenue of about $442 million. Total costs are about $391 million of which 56% represents livestock procurement and 31% represents shipping costs. Net value added post farm gate is estimated to be around $51 million representing about $8.10 per sheep exported.

Sheepmeat Exports

Table 38 shows that total exports of sheepmeats in 1987/88 and 1988/89 averaged $301 million and consisted of:-

| Product | Quantity ('000 t) | % of Quantity | Estimated Value ($ m) | % of Value |
|---|---|---|---|---|
| Boneless Sheepmeat | 54,179 | 47 | 149 | 50 |
| Sheepmeat Carcases | 55,495 | 49 | 144 | 48 |
| Sheep Offals | 4,408 | 4 | 7 | 2 |
| Total | 114,082 | 100 | 300 | 100 |

The cost of exporting sheepmeats averaged 69 cents/kg to total $78 million, of which shipping costs were the major item. Total value added is estimated to be around $1.03 million which is 0.14% of total export sales or 0.9 cents/kg of shipped weight.

TABLE 38 : SUMMARY OF PHYSICAL AND FINANCIAL RESULTS FOR SHEEP EXPORT SECTOR

A. PHYSICAL

| | Inputs ('000 t) | Outputs ('000 t) Boneless Sheepmeat | Carcases | Offals | Live Sheep ('000 hd) |
|---|---|---|---|---|---|
| Boneless Sheepmeat | 54 | 54 | - | - | - |
| Carcases | 55 | - | 55 | - | - |
| Offals | 4 | - | - | 4 | - |
| Live Sheep | 6,316 | - | - | - | 6,316 |

B. FINANCIAL ($ million)

| | Inputs From | | | Outputs To | | | |
|---|---|---|---|---|---|---|---|
| | Other Sectors | External | Total | Other Sectors | External | Total | Value Added |
| Live Sheep | 218 | 173 | 391 | - | 442 | 442 | 51 |
| Mutton and Lamb | 221 | 78 | 299 | - | 300 | 300 | 1 |
| Total | 439 | 251 | 690 | - | 742 | 742 | 52 |

RESEARCH AND DEVELOPMENT INVESTMENT STUDY

ANNEX 1 : DETAILED DESCRIPTION OF THE VALUE CHAIN MODEL.

ANNEX 2 : STATISTICAL AREAS IN THE REGIONS OF THE VALUE CHAIN.

ANNEX 3 : SOURCES OF DATA USED IN THE VALUE CHAIN MODEL.

ANNEX 4 : STATIC AND DYNAMIC HERD/FLOCK MODELS.

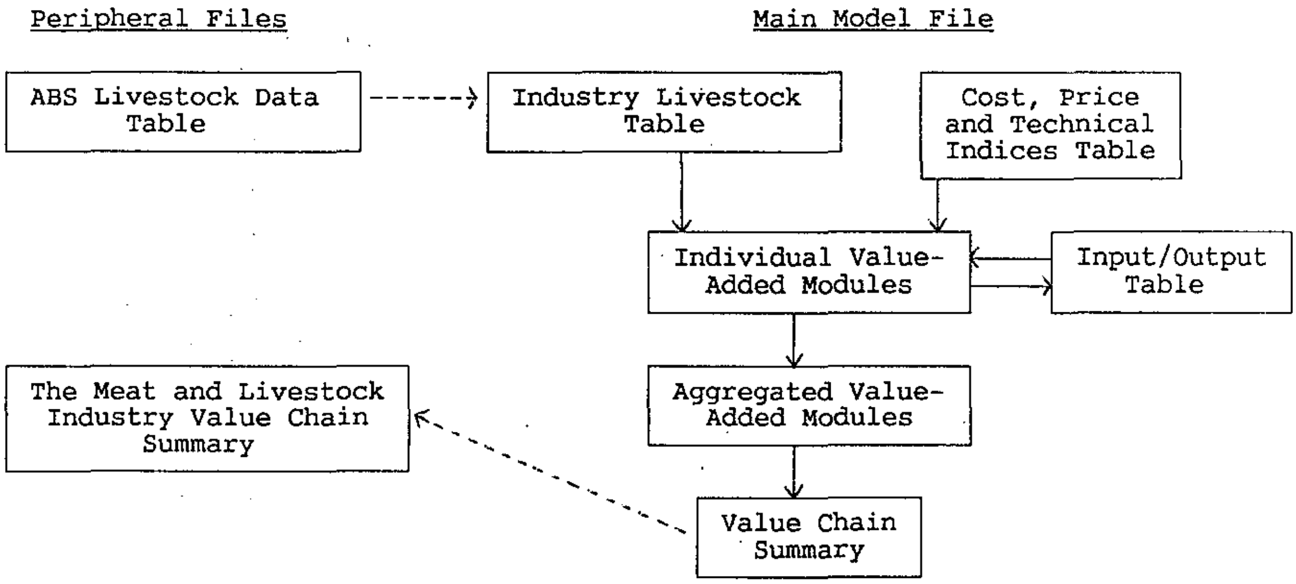
ANNEX 5 : THE VALUE CHAIN MODEL FOR CATTLE.

ANNEX 6 : THE VALUE CHAIN MODEL FOR SHEEP.

# RESEARCH AND DEVELOPMENT INVESTMENT STUDY

## DETAILED DESCRIPTION OF THE VALUE CHAIN MODEL

FIGURE 1 : COMPONENTS OF VALUE CHAIN SPREADSHEET PROGRAM




* Cost, Price and Technical Indices Table (see Tables 43 and 44, Annex 5). This is principally used to conduct "what if" analyses. The table contains indices (initially set to 1.0) that are linked to all quantities, prices, costs, carcase weights, livestock turnoff rates and product conversion factors that appear in the individual value-added modules. The table is used in "what if" analysis by changing indices from 1.0 to say 1.1 to simulate a 10% increase in any quantity, price, cost, weight, turnoff or conversion factor. The model will recalculate in approximately 5-8 seconds after any adjustment in the data.

* Individual Value-Added Modules (see Tables 14-39, Annex 5). This spreadsheet is the core of the model and consists of a number of modules, each representing a sector, subsector or region of the industry. In some cases a sector may only have one subsector and thus only one module. Each module includes the description, quantity and unit value of the inputs (from preceding sectors and external sources), outputs (to subsequent sectors and external destinations), and value added (outputs less inputs). There are two basic module types. The farm sector modules include information on livestock inventories and turnoff percentages. As there are no inputs from sectors preceding the farm sector, only external inputs flow into the farm modules. All other sectors use an identical module template. These modules detail the inputs from preceding sectors elsewhere in the chain as well as external inputs. A list of modules by sector and subsector and their code numbers are given in Annexes 5 and 6.

* Input/Output Tables (see Tables 41 and 42, Annex 5). There are two input/output tables in the model, one for the farm sector and one for all other sectors. Each table defines the proportion and quantity of outputs from each sector, subsector or region, and product flows to

ANNEX 2

# RESEARCH AND DEVELOPMENT INVESTMENT STUDY

# STATISTICAL AREAS IN THE REGIONS OF THE VALUE CHAIN

| Region | ABARE Region No. b/ | Model Region No. | Model Code No. b/ | State | Statistical Area c/ |
|---|---|---|---|---|---|
| Southern Pastoral | 6 | 6 | 1117 | SA | SD20 SSD05 LGA 9039; SD30 SSD05 LGA 9179, SSD10 LGA 9249; SD35. |
| | | | | NSW | SD35 SSD15; SD55 SSD20; SD60. |
| Eastern High Rainfall - Tablelands | 7 | 7T | 1118 | NSW | SD10 SSD10 LGA's 7600, 5650, 5250, 5600, 6800, 3050, 2700; SD30 SSD15; SD40 SSD10; SD45 SSD5, 20, 10 LGA's 3600, 7250, 2400, 3150, 5450, 6450. |
| | | | | ACT | All SDs. |
| Eastern High Rainfall - Coastal | 7 | 7C | 1119 | NSW | SD05; SD10 SSD05, SSD10 LGA 3400; SD15; SD20; SD25; SD45 SSD15. |
| Northern Wheat/Sheep - Southern | 8 | 8S | 11110 | NSW | SD30 SSD10, 20; SD35 SSD10. |
| Northern Wheat/Sheep - Northern | 8 | 8N | 1121 | QLD | SD20; SD25 SSD05 LGA's 1750, 0300, 7200, 6400, 0650, 0850, 1850; SD30 SSD10, SSD15, LGA's 5850, 3000, 2850, 0500, SSD20; SD40 SSD10 LGA 0600. |
| Northern Coast Tropical | 9 | 9 | 1122 | QLD | SD5; SD10; SD15; SD30 BAL: D40 BAL; SD45 BAL; SD50 SSD05, SSD10 LGA 2900, 4150, 2200, 2800, 5404, 0200. |
| North-Eastern Tropical | 10 | 10 | 1123 | QLD | SD25 SSD05 LGA 5600; SD30 SSD15 LGA 1400; SD35 SSD05 LGA's 0150, 4700, 3850, 0400, 0750, 6650; SD45 SSD15 LGA's 2300, 2700; SD50 SSD10 LGA's 2600, 3100, 3700, 4850, SD55 SSD05 LGA's 4800, 6300, 3200. |
| Central Pastoral | 11 | 11 | 1124 | QLD | SD25 SSD5 LGA's 6150, 1750, 5800; SD35 SSD5 LGA's 0450, 7400, 4050, 2750, 0900; SD55 SSD5 LGA 5300, 2450. |
| | | | | NT | SD10 SSD30 LGA 4409, SSD35, SSD40. |
| | | | | WA | SD45. |

ANNEX 3

# RESEARCH AND DEVELOPMENT INVESTMENT STUDY

# SOURCES OF DATA USED IN THE VALUE CHAIN MODEL

## SOURCES OF DATA USED IN THE VALUE CHAIN MODEL

| Sector | Data Item(s) | Data Sources |
|---|---|---|
| Farm | * Livestock population distribution, turnoff and milk/wool production. | * ABS Agricultural Census 1987/88 and 1988/89. |
| | * Costs of livestock production. | * Australian Bureau of Agricultural and Resource Economics (ABARE) Farm Surveys 1987/88 and 1988/89. |
| | | * Miscellaneous info: Australian Wool Board, AMLC, AMLRDC, Australian Milk Board, Elders and ABARE. |
| | * Carcase weights, livestock prices and wool/milk prices. | * AMLC Statistical Review 1988/89, ABARE 1989 Commodity Statistical Bulletin. |
| | | * ABARE Regionalised Price Data (unpublished). |
| Feedlot | * Type and location of livestock sourced and throughput. | * Australian Lotfeeders' Association (ALFA) Census. |
| | | * Discussions with various industry representatives. |
| | * Turnoff and costs of production. | * Independent report conducted by Mr. Richard Orton. |
| | * Carcase weights, livestock prices, production of by-products and by-product prices. | * Mr. Richard Orton. |
| | | * Discussions with various industry representatives. |
| Abattoir | * Type and location of livestock sourced. | * Annual reports and discussions with State Meat Authorities. |
| | * Production conversion factors and costs of production. | * Independent report produced by Mr. Alex Graham, Alex Graham and Associates. |
| | * Product and by-product prices. | * Mr. Alex Graham. |
| | | * ABS Export data. |
| | | * AMLC Statistical Review (i.e. extrapolate ex-abattoir price from retail prices). |
| | | * AMLC Export Marketing Group Notes. |
| Other Meat Processing | * Type and source of intermediate products (e.g. meat/offal/other by-products), production conversion factors, costs of production and output prices. | * Independent report produced by Dr. Ray Winger, Food Consultants International. |
| | | * Mr. Alex Graham. |
| | | * Council of Australian Sausages and Smallgoods. |
| | | * Interviews with managers of meat processing establishments. |

ANNEX 4

# RESEARCH AND DEVELOPMENT INVESTMENT STUDY

## STATIC AND DYNAMIC HERD/FLOCK MODELS

STATIC HERD SOLUTION

| AGE | 0-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-6 | 6-7 | 7-8 | 8-9 | 9-10 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | FEMALES | | | | | | |
| CALVE% | | | | 0.60 | 0.60 | 0.60 | 0.60 | 0.60 | 0.60 | 0.60 | |
| DEATH% | 0.10 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | |
| SALES% | | | | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.95 | |
| A/UNITS | 0.30 | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| | | | | | MALES | | | | | | MALE |
| DEATH% | 0.10 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | | | | RATIO |
| SALES% | | | 0.10 | 0.10 | 0.10 | 0.10 | 0.95 | | | | 0.05 |
| A/UNITS | 0.35 | 0.90 | 1.20 | 1.20 | 1.20 | 1.20 | 1.20 | | | | |
| | | | | | CASTRATES | | | | | | |
| DEATH% | 0.10 | 0.05 | 0.05 | 0.05 | 0.05 | | | | | | |
| SALES% | | | 0.50 | 0.50 | 0.95 | | | | | | |
| A/UNITS | 0.30 | 0.80 | 1.00 | 1.00 | 1.00 | | | | | | |

---

FEMALES

| AGE | 0-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-6 | 6-7 | 7-8 | 8-9 | 9-10 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ON | | 599 | 569 | 425 | 383 | 344 | 310 | 279 | 251 | 226 | 3385 |
| PU | | | | | | | | | | | 0 |
| NI | 665 | | | | | | | | | | 665 |
| DE | 67 | 30 | 28 | 21 | 19 | 17 | 15 | 14 | 13 | 11 | 236 |
| SA | 0 | 0 | 115 | 21 | 19 | 17 | 15 | 14 | 13 | 215 | 429 |
| CN | 599 | 569 | 425 | 383 | 344 | 310 | 279 | 251 | 226 | 0 | 3385 |

MALES

| AGE | 0-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-6 | 6-7 | 7-8 | 8-9 | 9-10 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ON | | 40 | 38 | 32 | 27 | 23 | 20 | 0 | 0 | 0 | 179 |
| PU | | | | | | | | | | | 0 |
| NI | 44 | | | | | | | | | | 44 |
| DE | 4 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 13 |
| SA | 0 | 0 | 4 | 3 | 3 | 2 | 19 | 0 | 0 | 0 | 31 |
| CN | 40 | 38 | 32 | 27 | 23 | 20 | 0 | 0 | 0 | 0 | 179 |

MALES REQUIRED = 139 MALES AVAILABLE = 140

CASTRATES

| AGE | 0-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-6 | 6-7 | 7-8 | 8-9 | 9-10 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ON | | 559 | 531 | 239 | 108 | 0 | 0 | 0 | 0 | 0 | 1437 |
| PU | | | | | | | | | | | 0 |
| NI | 621 | | | | | | | | | | 621 |
| DE | 62 | 28 | 27 | 12 | 5 | 0 | 0 | 0 | 0 | 0 | 134 |
| SA | 0 | 0 | 266 | 119 | 102 | 0 | 0 | 0 | 0 | 0 | 487 |
| CN | 559 | 531 | 239 | 108 | 0 | 0 | 0 | 0 | 0 | 0 | 1437 |

TOTAL

| AGE | 0-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-6 | 6-7 | 7-8 | 8-9 | 9-10 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ON | 0 | 1197 | 1137 | 696 | 517 | 367 | 329 | 279 | 251 | 226 | 5000 |
| PU | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NI | 1330 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1330 |
| DE | 133 | 60 | 57 | 35 | 26 | 18 | 16 | 14 | 13 | 11 | 383 |
| SA | 0 | 0 | 385 | 144 | 124 | 20 | 34 | 14 | 13 | 215 | 947 |
| CN | 1197 | 1137 | 696 | 517 | 367 | 329 | 279 | 251 | 226 | 0 | 5000 |

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ANIMAL UNITS

ON FEMALES = 2735 MALES = 198 CASTRATES 1325 TOTAL = 4258

ON=Opening Number, PU=Purchases, NI-Natural Increase, DE=Deaths, SA=Sales, CN=Closing Number

# RESEARCH AND DEVELOPMENT INVESTMENT STUDY

# THE VALUE CHAIN MODEL FOR CATTLE

## COMPONENTS OF THE CATTLE VALUE CHAIN MODEL

| Table No. | Table | Model Region No. | Code | Cell Address |
|---|---|---|---|---|
| | Industry Summary Tables (Spreadsheet A) | | | |
| 1. | Inputs, Outputs and Value Added by Sector : Cattle | National | 1000 | |
| 2. | Cattle Value Chain Summary | National | - | |
| 3. | Changes in Costs, Revenue and Value Added : Cattle | National | - | |
| | Sector Totals (Spreadsheet B) | | | |
| 4. | Cattle/Farm/Total | National | 1100 | |
| 5. | Cattle/Farm/South/Total | South | 1110 | |
| 6. | Cattle/Farm/North/Total | North | 1120 | |
| 7. | Cattle/Feedlot/Total | National | 1200 | |
| 8. | Cattle/Abattoir/Total | National | 1300 | |
| 9. | Cattle/OMP/Total | National | 1400 | |
| 10. | Cattle/Tannery/Total | National | 1500 | |
| 11. | Cattle/Wholesale/Total | National | 1600 | |
| 12. | Cattle/Retail/Total | National | 1700 | |
| 13. | Cattle/Export/Total | National | 1800 | |
| | Regional and Subsector Tables (Spreadsheet C) | | | |
| 14. | Cattle/Farm/South/Western High Rainfall | 1 | 1111 | |
| 15. | Cattle/Farm/South/Western Wheat Sheep | 2 | 1112 | |
| 16. | Cattle/Farm/South/Western Pastoral | 3 | 1113 | |
| 17. | Cattle/Farm/South/Tasmania | 13 | 1114 | |
| 18. | Cattle/Farm/South/Southern High Rainfall | 4 | 1115 | |
| 19. | Cattle/Farm/South/Southern Wheat Sheep | 5 | 1116 | |
| 20. | Cattle/Farm/South/Southern Pastoral | 6 | 1117 | |
| 21. | Cattle/Farm/South/Eastern High Rainfall, Tablelands | 7T | 1118 | |
| 22. | Cattle/Farm/South/Eastern High Rainfall, Coast | 7C | 1119 | |
| 23. | Cattle/Farm/South/Northern Wheat Sheep, South | 8S | 11110 | |
| 24. | Cattle/Farm/North/Northern Wheat Sheep, North | 8N | 1121 | |
| 25. | Cattle/Farm/North/North-Eastern Mixed | 9 | 1122 | |
| 26. | Cattle/Farm/North/North-Eastern Pastoral | 10 | 1123 | |
| 27. | Cattle/Farm/North/Central Pastoral | 11 | 1124 | |
| 28. | Cattle/Farm/North/Northern Pastoral | 12 | 1125 | |
| 29. | Cattle/Feedlot/Local | National | 1201 | |
| 30. | Cattle/Feedlot/Export | National | 1202 | |
| 31. | Cattle/Abattoir/Export | National | 1301 | |
| 32. | Cattle/Abattoir/Domestic | National | 1302 | |
| 33. | Cattle/Other Meat Processing | National | 1400 | |
| 34. | Cattle/Tannery | National | 1500 | |
| 35. | Cattle/Wholesale | National | 1600 | |
| 36. | Cattle/Retail/Butcher | National | 1701 | |
| 37. | Cattle/Retail/Supermarket | National | 1702 | |
| 38. | Cattle/Export/Meat | National | 1801 | |
| 39. | Cattle/Export/Live Animals | National | 1802 | |

TABLE 1 CATTLE: INPUTS,OUTPUTS AND VALUE ADDED ($ MILLION)

| | INPUTS TO ($ MILLION) | | | | | | | | TOTAL TO OTHER SECTORS | EXTERNAL OUTPUTS | TOTAL OUTPUTS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | FARM | FEEDLOT | ABATTOIR | OMP | TANNERY | WHOLESALE | RETAIL | EXPORT | | | |
| FARM | 0 | 295 | 2979 | 0 | 0 | 0 | 0 | 42 | 3317 | 1619 | 4936 |
| FEEDLOT | 0 | 0 | 480 | 0 | 0 | 0 | 0 | 0 | 480 | 7 | 486 |
| ABATTOIR | 0 | 0 | 0 | 264 | 357 | 1228 | 478 | 2066 | 4392 | 191 | 4583 |
| OMP | 0 | 0 | 0 | 0 | 0 | 0 | 52 | 0 | 52 | 481 | 533 |
| TANNERY | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 495 | 495 |
| WHOLESALE | 0 | 0 | 0 | 0 | 0 | 0 | 1229 | 0 | 1229 | 339 | 1566 |
| RETAIL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3470 | 3470 |
| EXPORT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2511 | 2511 |
| TOTAL FROM OTHER SECTORS | 0 | 295 | 3459 | 264 | 357 | 1228 | 1759 | 2108 | 9469 | 9112 | 18582 |
| EXTERNAL INPUTS | 2843 | 109 | 1036 | 150 | 96 | 282 | 1542 | 375 | 6434 | | |
| TOTAL INPUTS | 2843 | 404 | 4495 | 414 | 453 | 1510 | 3301 | 2483 | 15903 | | |
| VALUE ADDED | 2093 | 82 | 88 | 119 | 41 | 58 | 169 | 28 | 2679 | | |

TABLE 3 CATTLE: CHANGES IN COSTS.REVENUE AND VALUE ADDED ($MILLION)

| | FARM | FEEDLOT | ABATTOIR | OMP | TANNERY | WHOLESALE | RETAIL | EXPORT | TOTAL |
|---|---|---|---|---|---|---|---|---|---|
| INPUTS :OTHER SECTORS | | | | | | | | | |
| BASE LEVEL | 0 | 295 | 3459 | 264 | 357 | 1228 | 1759 | 2108 | 9469 |
| NEW LEVEL | 0 | 295 | 3459 | 264 | 357 | 1228 | 1759 | 2108 | 9469 |
| CHANGE -$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CHANGE -% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| INPUTS :EXTERNAL | | | | | | | | | |
| BASE LEVEL | 2843 | 109 | 1036 | 150 | 96 | 282 | 1542 | 375 | 6434 |
| NEW LEVEL | 2843 | 109 | 1036 | 150 | 96 | 282 | 1542 | 375 | 6434 |
| CHANGE -$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CHANGE -% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| INPUTS :TOTAL | | | | | | | | | |
| BASE LEVEL | 2843 | 404 | 4495 | 414 | 453 | 1510 | 3301 | 2483 | 15903 |
| NEW LEVEL | 2843 | 404 | 4495 | 414 | 453 | 1510 | 3301 | 2483 | 15903 |
| CHANGE -$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CHANGE -% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| OUTPUTS :OTHER SECTORS | | | | | | | | | |
| BASE LEVEL | 3317 | 480 | 4391 | 52 | 0 | 1229 | 0 | 0 | 9468 |
| NEW LEVEL | 3317 | 480 | 4391 | 52 | 0 | 1229 | 0 | 0 | 9468 |
| CHANGE -$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CHANGE -% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| OUTPUTS :EXTERNAL | | | | | | | | | |
| BASE LEVEL | 1619 | 7 | 191 | 481 | 495 | 339 | 3470 | 2511 | 9112 |
| NEW LEVEL | 1619 | 7 | 191 | 481 | 495 | 339 | 3470 | 2511 | 9112 |
| CHANGE -$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CHANGE -% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| OUTPUTS :TOTAL | | | | | | | | | |
| BASE LEVEL | 4936 | 486 | 4582 | 533 | 495 | 1568 | 3470 | 2511 | 18580 |
| NEW LEVEL | 4936 | 486 | 4582 | 533 | 495 | 1568 | 3470 | 2511 | 18580 |
| CHANGE -$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CHANGE -% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| VALUE ADDED : | | | | | | | | | |
| BASE LEVEL | 2093 | 82 | 87 | 119 | 41 | 58 | 169 | 28 | 2678 |
| NEW LEVEL | 2093 | 82 | 87 | 119 | 41 | 58 | 169 | 28 | 2678 |
| CHANGE -$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CHANGE -% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

TABLE 5 CATTLE/FARM/SOUTH/TOTAL a/

CODE:1110

| L/STOCK ENTERPRISE | UNIT | QTY | L/STOCK TURN-OFF % b/ B+S | C+H | C |
|---|---|---|---|---|---|
| 1. BEEF CATTLE | '000 HD | 8923 | | | |
| 2. DAIRY CATTLE | '000 HD | 2245 | | | |
| 3. | | 0 | | | |
| 4. | | 0 | | | |
| 5. | | 0 | | | |
| | | 11168 | | | |

| INPUTS | UNIT | AVG DWT (KG) | UNIT VALUE | QTY | TOTAL VALUE |
|---|---|---|---|---|---|
| FROM EXTERNAL SOURCES: | | | | | |
| 1. PAST/FERT | $/HD | | 15.9 | 11168 | 177608 |
| 2. FODDER | $/HD | | 13.5 | 11168 | 150660 |
| 3. WAGES | $/HD | | 7.3 | 11168 | 81403 |
| 4. FREIGHT | $/HD | | 1.4 | 11168 | 15412 |
| 5. SELLING COSTS | $/HD | | 6.1 | 11168 | 68599 |
| 6. SHEARING & CRUTCH. | $/HD | | 0.0 | 0 | 0 |
| 7. WOOL DEDUCTIONS | $/HD | | 0.0 | 0 | 0 |
| 8. OTHER VAR. COSTS | $/HD | | 73.7 | 11168 | 822826 |
| 9. INTEREST | $/HD | | 25.1 | 11168 | 280476 |
| 10. OVERHEADS | | | 18.0 | 11168 | 200858 |
| 11. | | | 0.0 | 0 | 0 |
| TOTAL INPUTS | | | | | 1797841 |
| **OUTPUTS** | | | | | |
| TO OTHER SECTORS: | | | | | |
| 1. BULLS+STEERS | $/HD | | 488.7 | 1613 | 788284 |
| 2. COWS+HEIFERS | $/HD | | 336.7 | 1370 | 461323 |
| 3. CALVES | $/HD | | 37.2 | 1045 | 38828 |
| 4. FEEDERS-HEAVY | $/HD | | 575.6 | 270 | 155141 |
| 5. FEEDERS-LIGHT | $/HD | | 315.9 | 268 | 84638 |
| SUB TOTAL | | | | 4565 | 1528214 |
| TO EXTERNAL DESTINATIONS: | | | | | |
| 1. MILK PRODN | $'000/ML | | 257.2 | 5516 | 1418484 |
| 2. | | | 0.0 | 0 | 0 |
| 3. | | | 0.0 | 0 | 0 |
| 4. | | | 0.0 | 0 | 0 |
| SUB TOTAL | | | | | 1418484 |
| TOTAL OUTPUTS | | | | | 2946698 |
| VALUE ADDED | | | | | 1148857 |

a/ ALL VALUES IN $'000

b/ B+S=BULLS & STEERS, C+H=COWS & HEIFERS, C=CALVES

TABLE 7 CATTLE/FEEDLOT/TOTAL a/

CODE:1200

| INPUTS | UNIT | AVG DWT (KG) | UNIT VALUE | QTY | TOTAL VALUE | OUTPUT CONV. FACTOR % b/ S | O |
|---|---|---|---|---|---|---|---|
| FROM OTHER SECTORS: | | | | | | | |
| 1. FEEDERS | $/HD | | 444 | 665 | 295211 | | |
| 2. 0 | 0 | | | 0 | 0 | | |
| 3. 0 | 0 | | | 0 | 0 | | |
| 4. | | | | | 0 | | |
| 5. | | | | | 0 | | |
| SUB TOTAL | | | | 665.4 | 295211 | | |
| FROM EXTERNAL SOURCES: | | | | | | | |
| 1. PROCESSING-INTAKE | $/HD | | 2.6 | 665 | 1747 | | |
| 2. PROCESSING-EXIT | $/HD | | 0.4 | 665 | 236 | | |
| 3. FEED | $/HD | | 137.7 | 665 | 91624 | | |
| 4. GRAIN PROCESSING | $/HD | | 2.1 | 665 | 1403 | | |
| 5. ROUGHAGE PROCESS | $/HD | | 0.3 | 665 | 167 | | |
| 6. FEEDING OUT | $/HD | | 3.6 | 665 | 2386 | | |
| 7. SURVEILLANCE | $/HD | | 2.6 | 665 | 1708 | | |
| 8. REPAIRS & MAINT. | $/HD | | 5.2 | 665 | 3442 | | |
| 9. ADMINISTRATION | $/HD | | 4.8 | 665 | 3170 | | |
| 10. OVERHEADS | | | | 665 | 3259 | | |
| SUB TOTAL | | | | | 109141 | | |
| TOTAL INPUTS | | | | | 404352 | | |
| OUTPUTS | | | | | | | |
| TO OTHER SECTORS: | | | | | | | |
| 1. FEEDLOT S+H | $/HD | | 724 | 662.1 | 479653 | | |
| 2. 0 | 0 | | | 0.0 | 0 | | |
| 3. | | | | | 0 | | |
| 4. | | | | | 0 | | |
| 5. | | | | | 0 | | |
| SUB TOTAL | | | | 662.1 | 479653 | | |
| TO EXTERNAL DESTINATIONS: | | | | | | | |
| 1. MANURE | $/HD | | 10 | 662.1 | 6567 | | |
| 2. | | | | | 0 | | |
| 3. | | | | | 0 | | |
| 4. | | | | | 0 | | |
| SUB TOTAL | | | | | 6567 | | |
| TOTAL OUTPUTS | | | | | 486220 | | |
| VALUE ADDED | | | | | 81867 | | |

TABLE 9 CATTLE/DMP/TOTAL a/ b/

CODE:1400

| INPUTS | UNIT | AVG DWT (KG) | UNIT VALUE | QTY | TOTAL VALUE | OUTPUT CONV. FACTOR % 1. | 2. | 3. | 4. |
|---|---|---|---|---|---|---|---|---|---|
| FROM OTHER SECTORS: | | | | | | | | | |
| 1. BONELESS PRIMAL | '000 KG | | 0.00 | 0 | 0 | | | | |
| 2. BONELESS OTHER | '000 KG | | 2.77 | 87486 | 242338 | | | | |
| 3. CARCASES | '000 KG | | 0.00 | 0 | 0 | | | | |
| 4. OFFALS | '000 KG | | 0.00 | 0 | 0 | | | | |
| 5. OTHER BY-PRODUCTS | '000 KG | | 0.77 | 27883 | 21387 | | | | |
| SUB TOTAL | | | | 115370 | 263724 | | | | |
| FROM EXTERNAL SOURCES: | | | | | | | | | |
| 1. RAW MATERIALS | $/KG | | 0.60 | 115370 | 69222 | | | | |
| 2. LABOUR | $/KG | | 0.22 | 115370 | 24804 | | | | |
| 3. SERVICES | $/KG | | 0.13 | 115370 | 14421 | | | | |
| 4. PACKAGING | $/KG | | 0.13 | 115370 | 14421 | | | | |
| 5. TRANSPORT | $/KG | | 0.11 | 115370 | 12691 | | | | |
| 6. OVERHEADS | | | | 115370 | 14421 | | | | |
| 7. | | | | 0 | 0 | | | | |
| 8. | | | | 0 | 0 | | | | |
| 9. | | | | 0 | 0 | | | | |
| 10. | | | | 0 | 0 | | | | |
| | | | | 0 | 0 | | | | |
| SUB TOTAL | | | | 0 | 149980 | | | | |
| TOTAL INPUTS | | | | | 413705 | | | | |
| OUTPUTS | | | | | | | | | |
| TO OTHER SECTORS: | | | | | | | | | |
| 1. SAUSAGES | | | 2.53 | 20749 | 52390 | | | | |
| 2. | | | | 0 | 0 | | | | |
| 3. | | | | 0 | 0 | | | | |
| 4. | | | | 0 | 0 | | | | |
| 5. | | | | 0 | 0 | | | | |
| SUB TOTAL | | | | 20749 | 52390 | | | | |
| TO EXTERNAL DESTINATIONS: | | | | | | | | | |
| 1. PET FOOD | | | 0.81 | 133634 | 108243 | | | | |
| 2. EMULSIFIED PRODS | | | 2.53 | 7358 | 18579 | | | | |
| 3. HAMBURGER MEAT | | | 3.06 | 28433 | 87005 | | | | |
| 4. ALL OTHER b/ | | | 3.89 | 68651 | 266709 | | | | |
| SUB TOTAL | | | | 238076 | 480537 | | | | |
| TOTAL OUTPUTS | | | | | 532927 | | | | |
| | | | | | 0 | | | | |
| VALUE ADDED | | | | | 119222 | | | | |

a/ ALL VALUES IN $'000

b/ INCLUDES CONTINENTAL GOODS, CORNED,SALTED AND ROAST BEEF, MEAT PIES AND CANNED MEAT PRODUCTS.

TABLE 11 CATTLE/WHOLESALE/TOTAL a/

CODE: 1600

| INPUTS | UNIT | AVG DWT (KG) | UNIT VALUE | QTY | TOTAL VALUE | OUTPUT CONV. FACTOR % 1. | 2. | 3. | 4. |
|---|---|---|---|---|---|---|---|---|---|
| FROM OTHER SECTORS: | | | | | | | | | |
| 1. BONELESS PRIMAL | '000 KG | | 4.18 | 120891 | 504718 | | | | |
| 2. BONELESS OTHER | '000 KG | | 0.00 | 0 | 0 | | | | |
| 3. CARCASES | '000 KG | | 2.34 | 308834 | 721128 | | | | |
| 4. OFFALS | '000 KG | | 1.90 | 956 | 1817 | | | | |
| 5. OTHER BY-PRODUCTS | '000 KG | | 0.00 | 0 | 0 | | | | |
| SUB TOTAL | | | | 430681 | 1227663 | | | | |
| FROM EXTERNAL SOURCES: | | | | | | | | | |
| 1. BONING | $/KG | | 0.42 | 67666 | 28420 | | | | |
| 2. PACKAGING | $/KG | | 0.17 | 67666 | 11503 | | | | |
| 3. SERVICES | $/KG | | 0.14 | 67666 | 9473 | | | | |
| 4. COLD STORE | $/KG | | 0.11 | 430681 | 47375 | | | | |
| 5. TRANSPORT | $/KG | | 0.16 | 430681 | 68909 | | | | |
| 6. NON-BONING LABOUR | $/KG | | 0.16 | 430681 | 68909 | | | | |
| 7. OVERHEADS | | | | | 47375 | | | | |
| 8. | | | | | 0 | | | | |
| 9. | | | | | 0 | | | | |
| 10. | | | | | 0 | | | | |
| | | | | | 0 | | | | |
| SUB TOTAL | | | | | 281964 | | | | |
| TOTAL INPUTS | | | | | 1509627 | | | | |
| OUTPUTS | | | | | | | | | |
| TO OTHER SECTORS: | | | | | | | | | |
| 1. BONELESS PRIMAL | $/KG | | 5.22 | 100173 | 522775 | | | | |
| 2. BONELESS OTHER | $/KG | | 0.00 | 0 | 0 | | | | |
| 3. CARCASES | $/KG | | 2.92 | 241169 | 703911 | | | | |
| 4. OFFALS | $/KG | | 2.19 | 956 | 2090 | | | | |
| 5. | | | | 0 | 0 | | | | |
| SUB TOTAL | | | | 342298 | 1228776 | | | | |
| TO EXTERNAL DESTINATIONS: | | | | | | | | | |
| 1. OTHER RETAIL-MEAT | $/KG | | 5.22 | 64701 | 337656 | | | | |
| 2. BONES & FAT | | | 0.07 | 23780 | 1665 | | | | |
| 3. | | | | 0 | 0 | | | | |
| 4. | | | | 0 | 0 | | | | |
| SUB TOTAL | | | | 88481 | 339321 | | | | |
| TOTAL OUTPUTS | | | | | 1568097 | | | | |
| VALUE ADDED | | | | | 58470 | | | | |

a/ ALL VALUES IN $'000

TABLE 13 CATTLE/EXPORT/TOTAL a/

CODE:1800

| INPUTS | UNIT | AVG DWT (KG) | UNIT VALUE | QTY | TOTAL VALUE | OUTPUT CONV. FACTOR 1. | 2. | 3. | 4. |
|---|---|---|---|---|---|---|---|---|---|
| FROM OTHER SECTORS: | | | | | | | | | |
| 1. BONELESS PRIMAL | '000 KG | | 4.18 | 201723 | 842192 | | | | |
| 2. BONELESS OTHER | '000 KG | | 2.77 | 370947 | 1027523 | | | | |
| 3. CARCASES | '000 KG | | 2.34 | 56663 | 132309 | | | | |
| 4. OFFALS | '000 KG | | 1.96 | 32463 | 63585 | | | | |
| 5. LIVE ANIMALS | '000 HD | | 472 | 90 | 42407 | | | | |
| SUB TOTAL | | | | | 2108015 | | | | |
| FROM EXTERNAL SOURCES: | | | | | | | | | |
| 1. FREIGHT & HANDLING | | | 0.01 | 661886 | 8829 | | | | |
| 2. INSURANCE | | | 0.02 | 661886 | 10149 | | | | |
| 3. SHIPPING BONELESS/ANIMALS | | | 0.40 | 605222 | 242211 | | | | |
| 4. SHIPPING CARCASSES | | | 0.68 | 56663 | 38531 | | | | |
| 5. FINANCE | | | 0.04 | 661886 | 25378 | | | | |
| 6. LEVIES | | | 0.03 | 661796 | 19854 | | | | |
| 7. COMMISSION | | | 0.04 | 661796 | 26472 | | | | |
| 8. QUARANTINE&TESTING | | | 35.00 | 90 | 3142 | | | | |
| 9. FODDER | | | 9.00 | 90 | 808 | | | | |
| 10. 0 | | | | 0 | 0 | | | | |
| SUB TOTAL | | | | | 375374 | | | | |
| TOTAL INPUTS | | | | | 2483389 | | | | |
| OUTPUTS | | | | | | | | | |
| TO OTHER SECTORS: | | | | | | | | | |
| 1. | | | | 0 | 0 | | | | |
| 2. | | | | 0 | 0 | | | | |
| 3. | | | | 0 | 0 | | | | |
| 4. | | | | 0 | 0 | | | | |
| 5. | | | | 0 | 0 | | | | |
| SUB TOTAL | | | | | 0 | | | | |
| TO EXTERNAL DESTINATIONS: | | | | | | | | | |
| 1. BONELESS PRIMAL/OTHER | | $/KG | 3.75 | 572670 | 2147885 | | | | |
| 2. CARCASES | | $/KG | 3.71 | 56663 | 209938 | | | | |
| 3. OFFALS | | $/KG | 2.55 | 32463 | 82619 | | | | |
| 4. LIVE EXPORTS | | $/HD | 787 | 90 | 70600 | | | | |
| SUB TOTAL | | | | | 2511042 | | | | |
| TOTAL OUTPUTS | | | | | 2511042 | | | | |
| VALUE ADDED | | | | | 27653 | | | | |

TABLE 15  CATTLE/FARM/SOUTH/WESTERN WHEAT-SHEEP a/

CODE: 1112

| L/STOCK ENTERPRISE | UNIT | QTY | TURN-OFF % b/ B+S | C+H | C | F-HS | F-LS | F-LH |
|---|---|---|---|---|---|---|---|---|
| 1. BEEF CATTLE | '000 HD | 179.7 | 22.0 | 15.8 | 2.7 | | 2.9 | 2.9 |
| 2. DAIRY CATTLE | '000 HD | 1.5 | 0.2 | 3.3 | 9.5 | | | |
| 3. | | | | | | | | |
| 4. | | | | | | | | |
| 5. | | | | | | | | |
| | | 181.3 | | | | | | |

| INPUTS | UNIT | AVG DWT (KG) | UNIT VALUE | QTY | TOTAL VALUE |
|---|---|---|---|---|---|
| FROM EXTERNAL SOURCES: | | | | | |
| 1. PAST/FERT | $/HD | | 32.77 | 181.3 | 5940 |
| 2. FODDER | $/HD | | 5.18 | 181.3 | 939 |
| 3. WAGES | $/HD | | 6.40 | 181.3 | 1160 |
| 4. FREIGHT | $/HD | | 1.24 | 181.3 | 225 |
| 5. SELLING COSTS | $/HD | | 2.53 | 181.3 | 459 |
| 6. SHEARING & CRUTCH. | $/HD | | | | |
| 7. WOOL DEDUCTIONS | $/HD | | | | |
| 8. OTHER VAR. COSTS | $/HD | | 97.94 | 181.3 | 17752 |
| 9. INTEREST | $/HD | | 26.87 | 181.3 | 4870 |
| 10. OVERHEADS | | | | | 2788 |
| TOTAL INPUTS | | | | | 34131 |
| OUTPUTS | | | | | |
| TO OTHER SECTORS: | | | | | |
| 1. BULLS+STEERS | $/KG | 219 | 2.14 | 39.6 | 18521 |
| 2. COWS+HEIFERS | $/KG | 200 | 1.72 | 28.4 | 9776 |
| 3. CALVES | $/KG | 66 | 1.06 | 4.9 | 346 |
| 4. FEEDERS-HEAVY | $/KG | 246 | 2.34 | | |
| 5. FEEDERS-LIGHT | $/KG | 149 | 2.12 | 10.6 | 3348 |
| SUB TOTAL | | | | 83.6 | 31991 |
| TO EXTERNAL DESTINATIONS: | | | | | |
| 1. MILK PRODN | $'000/ML | | 281.00 | 1.0 | 270 |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| SUB TOTAL | | | | | 270 |
| TOTAL OUTPUTS | | | | | 32261 |
| VALUE ADDED | | | | | -1870 |

a/ ALL VALUES IN $'000

b/ B+S=BULLS & STEERS, C+H=COWS & HEIFERS, C=CALVES, F-HS=FEEDERS(HEAVY STEERS), F-LS=FEEDERS(LIGHT STEERS), F-LH=FEEDERS(LIGHT HEIFERS).

TABLE 17 CATTLE/FARM/SOUTH/TASMANIA a/

CODE: 1114

| L/STOCK ENTERPRISE | UNIT | QTY | TURN-OFF % b/ B+S | C+H | C | F-HS | F-LS | F-LH |
|---|---|---|---|---|---|---|---|---|
| 1. BEEF CATTLE | '000 HD | 416.6 | 18.5 | 11.7 | 1.1 | 1.8 | 1.8 | 1.8 |
| 2. DAIRY CATTLE | '000 HD | 134.6 | 0.7 | 13.4 | 39.2 | | | |
| 3. | | | | | | | | |
| 4. | | | | | | | | |
| 5. | | | | | | | | |
| | | 551.3 | | | | | | |

| INPUTS | UNIT | AVG DWT (KG) | UNIT VALUE | QTY | TOTAL VALUE |
|---|---|---|---|---|---|
| FROM EXTERNAL SOURCES: | | | | | |
| 1. PAST/FERT | $/HD | | 22.26 | 551.3 | 12272 |
| 2. FODDER | $/HD | | 18.17 | 551.3 | 10017 |
| 3. WAGES | $/HD | | 12.62 | 551.3 | 6957 |
| 4. FREIGHT | $/HD | | 0.89 | 551.3 | 491 |
| 5. SELLING COSTS | $/HD | | 5.77 | 551.3 | 3181 |
| 6. SHEARING & CRUTCH. | $/HD | | | | |
| 7. WOOL DEDUCTIONS | $/HD | | | | |
| 8. OTHER VAR. COSTS | $/HD | | 66.76 | 551.3 | 36804 |
| 9. INTEREST | $/HD | | 28.46 | 551.3 | 15690 |
| 10. OVERHEADS | | | | | 10000 |
| TOTAL INPUTS | | | | | 95411 |
| **OUTPUTS** | | | | | |
| TO OTHER SECTORS: | | | | | |
| 1. BULLS+STEERS | $/KG | 230 | 2.01 | 78.0 | 35914 |
| 2. COWS+HEIFERS | $/KG | 205 | 1.56 | 66.8 | 21373 |
| 3. CALVES | $/KG | 52 | 1.06 | 57.6 | 3173 |
| 4. FEEDERS-HEAVY | $/KG | 246 | 2.34 | 7.4 | 4280 |
| 5. FEEDERS-LIGHT | $/KG | 149 | 2.12 | 15.1 | 4767 |
| SUB TOTAL | | | | 225.0 | 69508 |
| TO EXTERNAL DESTINATIONS: | | | | | |
| 1. MILK PRODN | $'000/ML | | 243.00 | 323.9 | 78719 |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| SUB TOTAL | | | | | 78719 |
| TOTAL OUTPUTS | | | | | 148228 |
| VALUE ADDED | | | | | 52817 |

a/ ALL VALUES IN $'000

b/ B+S=BULLS & STEERS, C+H=COWS & HEIFERS, C=CALVES, F-HS=FEEDERS(HEAVY STEERS), F-LS=FEEDERS(LIGHT STEERS), F-LH=FEEDERS(LIGHT HEIFERS).

TABLE 19 CATTLE/FARM/SOUTH/SOUTHERN WHEAT-SHEEP a/

CODE: 1116

| L/STOCK ENTERPRISE | UNIT | QTY | TURN-OFF % b/ B+S | C+H | C | F-HS | F-LS | F-LH |
|---|---|---|---|---|---|---|---|---|
| 1. BEEF CATTLE | '000 HD | 1846.9 | 16.5 | 11.5 | 2.0 | 7.3 | 2.6 | 2.6 |
| 2. DAIRY CATTLE | '000 HD | 555.1 | 0.6 | 13.0 | 38.0 | | | |
| 3. | | | | | | | | |
| 4. | | | | | | | | |
| 5. | | | | | | | | |
| | | 2402.0 | | | | | | |

| INPUTS | UNIT | AVG DWT (KG) | UNIT VALUE | QTY | TOTAL VALUE |
|---|---|---|---|---|---|
| FROM EXTERNAL SOURCES: | | | | | |
| 1. PAST/FERT | $/HD | | 14.82 | 2402.0 | 35598 |
| 2. FODDER | $/HD | | 10.78 | 2402.0 | 25893 |
| 3. WAGES | $/HD | | 8.42 | 2402.0 | 20225 |
| 4. FREIGHT | $/HD | | 1.18 | 2402.0 | 2834 |
| 5. SELLING COSTS | $/HD | | 5.39 | 2402.0 | 12947 |
| 6. SHEARING & CRUTCH. | $/HD | | | | |
| 7. WOOL DEDUCTIONS | $/HD | | | | |
| 8. OTHER VAR. COSTS | $/HD | | 83.80 | 2402.0 | 201287 |
| 9. INTEREST | $/HD | | 30.50 | 2402.0 | 73261 |
| 10. OVERHEADS | | | | | 52315 |
| TOTAL INPUTS | | | | | 424360 |
| OUTPUTS | | | | | |
| TO OTHER SECTORS: | | | | | |
| 1. BULLS+STEERS | $/KG | 237 | 2.10 | 307.6 | 152741 |
| 2. COWS+HEIFERS | $/KG | 200 | 1.72 | 284.8 | 97978 |
| 3. CALVES | $/KG | 32 | 1.06 | 248.4 | 8294 |
| 4. FEEDERS-HEAVY | $/KG | 246 | 2.34 | 135.4 | 77918 |
| 5. FEEDERS-LIGHT | $/KG | 149 | 2.12 | 96.4 | 30448 |
| SUB TOTAL | | | | 1072.6 | 367378 |
| TO EXTERNAL DESTINATIONS: | | | | | |
| 1. MILK PRODN | $'000/ML | | 249.00 | 1364.0 | 339636 |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| SUB TOTAL | | | | | 339636 |
| TOTAL OUTPUTS | | | | | 707015 |
| VALUE ADDED | | | | | 282654 |

a/ ALL VALUES IN $'000

b/ B+S=BULLS & STEERS, C+H=COWS & HEIFERS, C=CALVES, F-HS=FEEDERS(HEAVY STEERS), F-LS=FEEDERS(LIGHT STEERS), F-LH=FEEDERS(LIGHT HEIFERS).

TABLE 21 CATTLE/FARM/SOUTH/EASTERN HIGH RAINFALL T/LANDS a/

CODE: 1118

| L/STOCK ENTERPRISE | UNIT | QTY | TURN-OFF % b/ B+S | C+H | C | F-HS | F-LS | F-LH |
|---|---|---|---|---|---|---|---|---|
| 1. BEEF CATTLE | '000 HD | 1288.9 | 18.9 | 12.6 | 2.2 | | | |
| 2. DAIRY CATTLE | '000 HD | 75.3 | 0.6 | 11.9 | 34.8 | | | |
| 3. | | | | | | | | |
| 4. | | | | | | | | |
| 5. | | | | | | | | |
| | | 1364.3 | | | | | | |

| INPUTS | UNIT | AVG DWT (KG) | UNIT VALUE | QTY | TOTAL VALUE |
|---|---|---|---|---|---|
| FROM EXTERNAL SOURCES: | | | | | |
| 1. PAST/FERT | $/HD | | 13.68 | 1364.3 | 18663 |
| 2. FODDER | $/HD | | 4.14 | 1364.3 | 5648 |
| 3. WAGES | $/HD | | 5.84 | 1364.3 | 7967 |
| 4. FREIGHT | $/HD | | 1.36 | 1364.3 | 1855 |
| 5. SELLING COSTS | $/HD | | 6.92 | 1364.3 | 9441 |
| 6. SHEARING & CRUTCH. | $/HD | | | | |
| 7. WOOL DEDUCTIONS | $/HD | | | | |
| 8. OTHER VAR. COSTS | $/HD | | 76.38 | 1364.3 | 104204 |
| 9. INTEREST | $/HD | | 17.78 | 1364.3 | 24257 |
| 10. OVERHEADS | | | | | 18268 |
| TOTAL INPUTS | | | | | 190304 |
| OUTPUTS | | | | | |
| TO OTHER SECTORS: | | | | | |
| 1. BULLS+STEERS | $/KG | 230 | 2.10 | 244.0 | 117335 |
| 2. COWS+HEIFERS | $/KG | 200 | 1.59 | 172.0 | 54516 |
| 3. CALVES | $/KG | 58 | 1.06 | 54.9 | 3373 |
| 4. FEEDERS-HEAVY | $/KG | 246 | 2.34 | | |
| 5. FEEDERS-LIGHT | $/KG | 149 | 2.12 | | |
| SUB TOTAL | | | | 470.9 | 175224 |
| TO EXTERNAL DESTINATIONS: | | | | | |
| 1. MILK PRODN | $'000/ML | | 290.00 | 166.2 | 48187 |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| SUB TOTAL | | | | | 48187 |
| TOTAL OUTPUTS | | | | | 223411 |
| VALUE ADDED | | | | | 33107 |

a/ ALL VALUES IN $'000

b/ B+S=BULLS & STEERS, C+H=COWS & HEIFERS, C=CALVES, F-HS=FEEDERS(HEAVY STEERS), F-LS=FEEDERS(LIGHT STEERS), F-LH=FEEDERS(LIGHT HEIFERS).

TABLE 23 CATTLE/FARM/SOUTH/NTHN WHEAT-SHEEP,STH a/

CODE: 11110

| L/STOCK ENTERPRISE | UNIT | QTY | TURN-OFF % b/ B+S | C+H | C | F-HS | F-LS | F-LH |
|---|---|---|---|---|---|---|---|---|
| 1. BEEF CATTLE | '000 HD | 1050.8 | 33.3 | 15.1 | 1.8 | 1.9 | 0.6 | 0.6 |
| 2. DAIRY CATTLE | '000 HD | 7.6 | 0.4 | 7.1 | 20.6 | | | |
| 3. | | | | | | | | |
| 4. | | | | | | | | |
| 5. | | | | | | | | |
| | | 1058.3 | | | | | | |

| INPUTS | UNIT | AVG DWT (KG) | UNIT VALUE | QTY | TOTAL VALUE |
|---|---|---|---|---|---|
| FROM EXTERNAL SOURCES: | | | | | |
| 1. PAST/FERT | $/HD | | 9.73 | 1058.3 | 10298 |
| 2. FODDER | $/HD | | 3.84 | 1058.3 | 4064 |
| 3. WAGES | $/HD | | 5.73 | 1058.3 | 6064 |
| 4. FREIGHT | $/HD | | 2.26 | 1058.3 | 2392 |
| 5. SELLING COSTS | $/HD | | 6.52 | 1058.3 | 6900 |
| 6. SHEARING & CRUTCH. | $/HD | | | | |
| 7. WOOL DEDUCTIONS | $/HD | | | | |
| 8. OTHER VAR. COSTS | $/HD | | 66.66 | 1058.3 | 70549 |
| 9. INTEREST | $/HD | | 22.05 | 1058.3 | 23336 |
| 10. OVERHEADS | | | | | 12298 |
| TOTAL INPUTS | | | | | 135901 |
| OUTPUTS | | | | | |
| TO OTHER SECTORS: | | | | | |
| 1. BULLS+STEERS | $/KG | 245 | 2.10 | 350.3 | 179784 |
| 2. COWS+HEIFERS | $/KG | 200 | 1.59 | 159.2 | 50456 |
| 3. CALVES | $/KG | 58 | 1.06 | 20.9 | 1286 |
| 4. FEEDERS-HEAVY | $/KG | 246 | 2.34 | 19.6 | 11310 |
| 5. FEEDERS-LIGHT | $/KG | 149 | 2.12 | 13.7 | 4313 |
| SUB TOTAL | | | | 563.6 | 247148 |
| TO EXTERNAL DESTINATIONS: | | | | | |
| 1. MILK PRODN | $'000/ML | | 290.00 | 10.0 | 2901 |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| SUB TOTAL | | | | | 2901 |
| TOTAL OUTPUTS | | | | | 250049 |
| VALUE ADDED | | | | | 114147 |

a/ ALL VALUES IN $'000

b/ B+S=BULLS & STEERS, C+H=COWS & HEIFERS, C=CALVES, F-HS=FEEDERS(HEAVY STEERS), F-LS=FEEDERS(LIGHT STEERS), F-LH=FEEDERS(LIGHT HEIFERS).

TABLE 25 CATTLE/FARM/NORTH/NORTH EASTERN MIXED a/

CODE: 1122

| L/STOCK ENTERPRISE | UNIT | QTY | TURN-OFF % b/ B+S | C+H | C | F-HS | F-LS | F-LH |
|---|---|---|---|---|---|---|---|---|
| 1. BEEF CATTLE | '000 HD | 2759.7 | 18.0 | 12.5 | 0.5 | 0.7 | 0.2 | 0.2 |
| 2. DAIRY CATTLE | '000 HD | 233.1 | 0.7 | 13.2 | 38.5 | | | |
| 3. | | | | | | | | |
| 4. | | | | | | | | |
| 5. | | | | | | | | |
| | | 2992.8 | | | | | | |

| INPUTS | UNIT | AVG DWT (KG) | UNIT VALUE | QTY | TOTAL VALUE |
|---|---|---|---|---|---|
| FROM EXTERNAL SOURCES: | | | | | |
| 1. PAST/FERT | $/HD | | 6.82 | 2992.8 | 20411 |
| 2. FODDER | $/HD | | 12.62 | 2992.8 | 37769 |
| 3. WAGES | $/HD | | 7.61 | 2992.8 | 22775 |
| 4. FREIGHT | $/HD | | 3.78 | 2992.8 | 11313 |
| 5. SELLING COSTS | $/HD | | 5.97 | 2992.8 | 17867 |
| 6. SHEARING & CRUTCH. | $/HD | | | | |
| 7. WOOL DEDUCTIONS | $/HD | | | | |
| 8. OTHER VAR. COSTS | $/HD | | 51.46 | 2992.8 | 154009 |
| 9. INTEREST | $/HD | | 12.97 | 2992.8 | 38816 |
| 10. OVERHEADS | | | | | 30886 |
| TOTAL INPUTS | | | | | 333846 |
| OUTPUTS | | | | | |
| TO OTHER SECTORS: | | | | | |
| 1. BULLS+STEERS | $/KG | 324 | 2.14 | 499.6 | 345619 |
| 2. COWS+HEIFERS | $/KG | 200 | 1.90 | 376.6 | 142724 |
| 3. CALVES | $/KG | 58 | 1.06 | 102.1 | 6279 |
| 4. FEEDERS-HEAVY | $/KG | 246 | 2.34 | 19.6 | 11310 |
| 5. FEEDERS-LIGHT | $/KG | 149 | 2.12 | 13.7 | 4313 |
| SUB TOTAL | | | | 1011.6 | 510244 |
| TO EXTERNAL DESTINATIONS: | | | | | |
| 1. MILK PRODN | $'000/ML | | 290.00 | 517.3 | 150023 |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| SUB TOTAL | | | | | 150023 |
| TOTAL OUTPUTS | | | | | 660267 |
| VALUE ADDED | | | | | 326421 |

a/ ALL VALUES IN $'000

b/ B+S=BULLS & STEERS, C+H=COWS & HEIFERS, C=CALVES, F-HS=FEEDERS(HEAVY STEERS), F-LS=FEEDERS(LIGHT STEERS), F-LH=FEEDERS(LIGHT HEIFERS).

TABLE 27 CATTLE/FARM/NORTH/CENTRAL PASTORAL a/

CODE: 1124

| L/STOCK ENTERPRISE | UNIT | QTY | TURN-OFF % b/ B+S | C+H | C | F-HS | F-LS | F-LH |
|---|---|---|---|---|---|---|---|---|
| 1. BEEF CATTLE | '000 HD | 2758.7 | 14.0 | 5.8 | 0.2 | | 0.6 | 0.6 |
| 2. DAIRY CATTLE | '000 HD | 0.3 | 0.2 | 3.9 | 11.4 | | | |
| 3. | | | | | | | | |
| 4. | | | | | | | | |
| 5. | | | | | | | | |
| | | 2759.0 | | | | | | |

| INPUTS | UNIT | AVG DWT (KG) | UNIT VALUE | QTY | TOTAL VALUE |
|---|---|---|---|---|---|
| FROM EXTERNAL SOURCES: | | | | | |
| 1. PAST/FERT | $/HD | | 0.23 | 2759.0 | 635 |
| 2. FODDER | $/HD | | 1.14 | 2759.0 | 3145 |
| 3. WAGES | $/HD | | 6.85 | 2759.0 | 18899 |
| 4. FREIGHT | $/HD | | 2.24 | 2759.0 | 6180 |
| 5. SELLING COSTS | $/HD | | 3.82 | 2759.0 | 10539 |
| 6. SHEARING & CRUTCH. | $/HD | | | | |
| 7. WOOL DEDUCTIONS | $/HD | | | | |
| 8. OTHER VAR. COSTS | $/HD | | 25.71 | 2759.0 | 70935 |
| 9. INTEREST | $/HD | | 10.05 | 2759.0 | 27728 |
| 10. OVERHEADS | | | | | 21520 |
| TOTAL INPUTS | | | | | 159582 |
| **OUTPUTS** | | | | | |
| TO OTHER SECTORS: | | | | | |
| 1. BULLS+STEERS | $/KG | 268 | 2.95 | 386.3 | 304320 |
| 2. COWS+HEIFERS | $/KG | 190 | 1.43 | 161.2 | 43644 |
| 3. CALVES | $/KG | 78 | 1.06 | 5.4 | 448 |
| 4. FEEDERS-HEAVY | $/KG | 246 | 2.34 | | |
| 5. FEEDERS-LIGHT | $/KG | 149 | 2.12 | 34.1 | 10762 |
| SUB TOTAL | | | | 587.0 | 359174 |
| TO EXTERNAL DESTINATIONS: | | | | | |
| 1. MILK PRODN | $'000/ML | | 290.00 | 0.2 | 68 |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| SUB TOTAL | | | | | 68 |
| TOTAL OUTPUTS | | | | | 359242 |
| VALUE ADDED | | | | | 199659 |

a/ ALL VALUES IN $'000

b/ B+S=BULLS & STEERS, C+H=COWS & HEIFERS, C=CALVES, F-HS=FEEDERS(HEAVY STEERS), F-LS=FEEDERS(LIGHT STEERS), F-LH=FEEDERS(LIGHT HEIFERS).

TABLE 29 CATTLE/FEEDLOT/LOCAL a/

CODE: 1201

| INPUTS | UNIT | AVG DWT (KG) | UNIT VALUE | QTY | TOTAL VALUE | OUTPUT CONV. FACTOR % b/ S+H |
|---|---|---|---|---|---|---|
| FROM OTHER SECTORS: | | | | | | |
| 1. FEEDERS-LIGHT | '000 HD | 149 | 2.12 | 338.2 | 106822 | 1.00 |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |
| 5. | | | | | | |
| SUB TOTAL | | | | 338.2 | 106822 | |
| FROM EXTERNAL SOURCES: | | | | | | |
| 1. PROCESSING-INTAKE | $/HD | | 3.52 | 338.2 | 1190 | |
| 2. PROCESSING-EXIT | $/HD | | 0.48 | 338.2 | 162 | |
| 3. FEED | $/HD | | 94.40 | 338.2 | 31923 | |
| 4. GRAIN PROCESSING | $/HD | | 1.52 | 338.2 | 514 | |
| 5. ROUGHAGE PROCESS | $/HD | | 0.16 | 338.2 | 54 | |
| 6. FEEDING OUT | $/HD | | 2.56 | 338.2 | 866 | |
| 7. SURVEILLANCE | $/HD | | 2.64 | 338.2 | 893 | |
| 8. REPAIRS & MAINT. | $/HD | | 5.36 | 338.2 | 1813 | |
| 9. ADMINISTRATION | $/HD | | 4.88 | 338.2 | 1650 | |
| 10. OVERHEADS | | | | | 893 | |
| SUB TOTAL | | | | | 39958 | |
| TOTAL INPUTS | | | | | 146780 | |
| OUTPUTS | | | | | | |
| TO OTHER SECTORS: | | | | | | |
| 1. FEEDLOT S+H | '000 HD | 218 | 2.18 | 336.5 | 159909 | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |
| 5. | | | | | | |
| SUB TOTAL | | | | 336.5 | 159909 | |
| TO EXTERNAL DESTINATIONS: | | | | | | |
| 1. MANURE | $/HD | | 5.00 | 336.5 | 1682 | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |
| SUB TOTAL | | | | | 1682 | |
| TOTAL OUTPUTS | | | | | 161591 | |
| VALUE ADDED | | | | | 14812 | |

a/ ALL VALUES IN $'000
b/ S=STEERS, H=HEIFERS.

TABLE 31 CATTLE/ABATTOIR/EXPORT a/

CODE: 1301

| INPUTS | UNIT | AVG DWT (KG) | UNIT VALUE | QTY | TOTAL VALUE | OUTPUT CONV. FACTOR % 1. | 2. | 3. | 4. | 5. | 1. | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FROM OTHER SECTORS: | | | | | | | | | | | | |
| 1. BULLS+STEERS | '000 HD | 280 | 2.19 | 2591 | 1585952 | 34.0 | 35.7 | | 2.0 | 1.5 | 37.9 | 111.000 |
| 2. COWS+HEIFERS | '000 HD | 200 | 1.73 | 1810 | 626287 | 19.0 | 49.3 | | 2.0 | 2.7 | 39.5 | 112.470 |
| 3. CALVES | '000 HD | | | | | | | | | | | |
| 4. FEEDLOT | '000 HD | 363 | 2.71 | 326 | 319744 | 51.3 | 17.7 | | 2.0 | 0.4 | 38.4 | 109.820 |
| 5. | | | | | | | | | | | | |
| SUB TOTAL | | | | 4726 | 2531983 | | | | | | | |
| FROM EXTERNAL SOURCES: | | | | | | | | | | | | |
| 1. LABOUR | $/HD | | 95.03 | 4726 | 449115 | | | | | | | |
| 2. PACKAGING | $/KG | | 0.09 | 1141180 | 107385 | | | | | | | |
| 3. SERVICES | $/HD | | 8.73 | 4726 | 41258 | | | | | | | |
| 4. AQIS | $/HD | | 5.50 | 4726 | 25993 | | | | | | | |
| 5. AMLC | $/HD | | 14.24 | 4726 | 67299 | | | | | | | |
| 6. INTEREST-W/CAPITAL | $/HD | | 2.10 | 4726 | 9925 | | | | | | | |
| 7. CONSUMABLES | $/HD | | 1.50 | 4726 | 7089 | | | | | | | |
| 8. REPS & MAINT | | | | | 46645 | | | | | | | |
| 9. GENERAL ADMIN | | | | | 21199 | | | | | | | |
| 10. INTEREST-DEBT | | | | | 4388 | | | | | | | |
| SUB TOTAL | | | | | 780296 | | | | | | | |
| TOTAL INPUTS | | | | | 3312278 | | | | | | | |
| OUTPUTS | | | | | | | | | | | | |
| TO OTHER SECTORS: | | | | | | | | | | | | |
| 1. BONELESS PRIMAL | $/KG | | 4.18 | 376067 | 1570080 | | | | | | | |
| 2. BONELESS OTHER | $/KG | | 2.77 | 457959 | 1268547 | | | | | | | |
| 3. CARCASES | $/KG | | | | | | | | | | | |
| 4. OFFALS | $/KG | | 1.98 | 24114 | 47721 | | | | | | | |
| 5. OTHER BY-PRODUCTS | $/KG | | 0.77 | 20821 | 15949 | | | | | | | |
| 6. RAW HIDES-CATTLE | $/HIDE | | 60.34 | 4726 | 285169 | | | | | | | |
| 7. | | | | | | | | | | | | |
| SUB TOTAL | | | | 878961 | 3187465 | | | | | | | |
| TO EXTERNAL DESTINATIONS: | | | | | | | | | | | | |
| 1. REND. BY-PRODUCTS | $/KG | | 0.35 | 463285 | 164003 | | | | | | | |
| 2. | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | |
| SUB TOTAL | | | | | 164003 | | | | | | | |
| TOTAL OUTPUTS | | | | | 3351468 | | | | | | | |
| VALUE ADDED | | | | | 39190 | | | | | | | |

a/ ALL VALUES IN $'000

TABLE 33 CATTLE/OTHER MEAT PROCESSING a/ b/

CODE: 1400

| INPUTS | UNIT | AVG DWT (KG) | UNIT VALUE | QTY | TOTAL VALUE | OUTPUT CONV. FACTOR % 1. | 1. | 2. | 3. | 4. | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FROM OTHER SECTORS: | | | | | | | | | | | |
| 1. BONELESS PRIMAL | '000 KG | | | | | | | | | | |
| 2. BONELESS OTHER | '000 KG | | 2.77 | 87486 | 242338 | 14.4 | 68.4 | 3.9 | 32.5 | 78.5 | 197.6 |
| 3. CARCASES | '000 KG | | | | | | | | | | |
| 4. OFFALS | '000 KG | | | | | | | | | | |
| 5. OTHER BY-PRODUCTS | '000 KG | | 0.77 | 27883 | 21387 | 29.3 | 265 | 14.3 | | | 308.3 |
| SUB TOTAL | | | | 115370 | 263724 | | | | | | |
| FROM EXTERNAL SOURCES: | | | | | | | | | | | |
| 1. RAW MATERIALS | $/KG | | 0.60 | 115370 | 69222 | | | | | | |
| 2. LABOUR | $/KG | | 0.22 | 115370 | 24804 | | | | | | |
| 3. SERVICES | $/KG | | 0.13 | 115370 | 14421 | | | | | | |
| 4. PACKAGING | $/KG | | 0.13 | 115370 | 14421 | | | | | | |
| 5. TRANSPORT | $/KG | | 0.11 | 115370 | 12691 | | | | | | |
| 6. OVERHEADS | | | | | 14421 | | | | | | |
| 7. | | | | | | | | | | | |
| 8. | | | | | | | | | | | |
| 9. | | | | | | | | | | | |
| 10. | | | | | | | | | | | |
| SUB TOTAL | | | | | 149980 | | | | | | |
| TOTAL INPUTS | | | | | 413705 | | | | | | |
| OUTPUTS | | | | | | | | | | | |
| TO OTHER SECTORS: | | | | | | | | | | | |
| 1. SAUSAGES | $/KG PRODUCT | | 2.53 | 20749 | 52390 | | | | | | |
| 2. | | | | | | | | | | | |
| 3. | | | | | | | | | | | |
| 4. | | | | | | | | | | | |
| 5. | | | | | | | | | | | |
| SUB TOTAL | | | | 20749 | 52390 | | | | | | |
| TO EXTERNAL DESTINATIONS: | | | | | | | | | | | |
| 1. PET FOOD | $/KG PRODUCT | | 0.81 | 133634 | 108243 | | | | | | |
| 2. EMULSIFIED PRODS | $/KG PRODUCT | | 2.53 | 7358 | 18579 | | | | | | |
| 3. HAMBURGER MEAT | $/KG PRODUCT | | 3.06 | 28433 | 87005 | | | | | | |
| 4. ALL OTHER b/ | $/KG PRODUCT | | 3.89 | 68651 | 266709 | | | | | | |
| SUB TOTAL | | | | 238076 | 480537 | | | | | | |
| TOTAL OUTPUTS | | | | | 532927 | | | | | | |
| VALUE ADDED | | | | | 119222 | | | | | | |

a/ ALL VALUES IN $'000

b/ INCLUDES CONTINENTAL GOODS, CORNED,SALTED AND ROAST BEEF, MEAT PIES AND CANNED MEAT PRODUCTS.

TABLE 35  CATTLE/ WHOLESALE a/

CODE:    1600

| INPUTS | UNIT | AVG DWT (KG) | UNIT VALUE | QTY | TOTAL VALUE | OUTPUT CONV.FACTOR % 1. | 2. | 3. | 4. | 1. | 2. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FROM OTHER SECTORS: | | | | | | | | | | | |
| 1. BONELESS PRIMAL | '000 KG | | 4.18 | 120891 | 504718 | 46.5 | | | | 53.5 | |
| 2. BONELESS OTHER | '000 KG | | | | | | | | | | |
| 3. CARCASES | '000 KG | | 2.34 | 308834 | 721128 | 14.2 | | 78.1 | | | 7.7 |
| 4. OFFALS | '000 KG | | 1.90 | 956 | 1817 | | | | 100 | | |
| 5. OTHER BY-PRODUCTS | '000 KG | | | | | | | | | | |
| SUB TOTAL | | | | 430681 | 1227663 | | | | | | |
| FROM EXTERNAL SOURCES: | | | | | | | | | | | |
| 1. BONING | $/KG | | 0.42 | 67666 | 28420 | | | | | | |
| 2. PACKAGING | $/KG | | 0.17 | 67666 | 11503 | | | | | | |
| 3. SERVICES | $/KG | | 0.14 | 67666 | 9473 | | | | | | |
| 4. COLD STORE | $/KG | | 0.11 | 430681 | 47375 | | | | | | |
| 5. TRANSPORT | $/KG | | 0.16 | 430681 | 68909 | | | | | | |
| 6. NON-BONING LABOUR | $/KG | | 0.16 | 430681 | 68909 | | | | | | |
| 7. OVERHEADS | | | | | 47375 | | | | | | |
| 8. | | | | | | | | | | | |
| 9. | | | | | | | | | | | |
| 10. | | | | | | | | | | | |
| SUB TOTAL | | | | | 281964 | | | | | | |
| TOTAL INPUTS | | | | | 1509627 | | | | | | |
| OUTPUTS | | | | | | | | | | | |
| TO OTHER SECTORS: | | | | | | | | | | | |
| 1. BONELESS PRIMAL | $/KG | | 5.22 | 100173 | 522775 | | | | | | |
| 2. BONELESS OTHER | $/KG | | | | | | | | | | |
| 3. CARCASES | $/KG | | 2.92 | 241169 | 703911 | | | | | | |
| 4. OFFALS | $/KG | | 2.19 | 956 | 2090 | | | | | | |
| 5. | | | | | | | | | | | |
| SUB TOTAL | | | | 342298 | 1228776 | | | | | | |
| TO EXTERNAL DESTINATIONS: | | | | | | | | | | | |
| 1. OTHER RETAIL-MEAT | $/KG | | 5.22 | 64701 | 337656 | | | | | | |
| 2. BONES & FAT | $/KG | | 0.07 | 23780 | 1665 | | | | | | |
| 3. | | | | | | | | | | | |
| 4. | | | | | | | | | | | |
| SUB TOTAL | | | | 88481 | 339321 | | | | | | |
| TOTAL OUTPUTS | | | | | 1568097 | | | | | | |
| VALUE ADDED | | | | | 58470 | | | | | | |

a/ ALL VALUES IN $'000

TABLE 37 CATTLE/RETAIL/SUPERMARKET a/

CODE: 1702

| INPUTS | UNIT | AVG DWT (KG) | UNIT VALUE | QTY | TOTAL VALUE | OUTPUT TURNOFF % 1. | 2. | 3. | 4. | 5. |
|---|---|---|---|---|---|---|---|---|---|---|
| FROM OTHER SECTORS: | | | | | | | | | | |
| 1. BONELESS PRIMAL | '000 KG | | 4.49 | 45506 | 204247 | 99.0 | | | | |
| 2. CARCASES | '000 KG | | 2.78 | 74484 | 207399 | 65.8 | 28.8 | | 5.4 | |
| 3. OFFALS | '000 KG | | 1.90 | 553 | 1051 | | | 100 | | |
| 4. SAUSAGES | '000 KG | | 2.53 | 20749 | 52390 | | 98.0 | | | |
| 5. | | | | | | | | | | |
| SUB TOTAL | | | | 141292 | 465087 | | | | | |
| FROM EXTERNAL SOURCES: | | | | | | | | | | |
| 1. LABOUR | $/KG | | 1.20 | 141292 | 169550 | | | | | |
| 2. RENT | $/KG | | 0.60 | 141292 | 84775 | | | | | |
| 3. SERVICES | $/KG | | 0.30 | 141292 | 42388 | | | | | |
| 4. PACKAGING | $/KG | | 0.29 | 141292 | 40975 | | | | | |
| 5. OVERHEADS | | | | | 56517 | | | | | |
| 6. | | | | | | | | | | |
| 7. | | | | | | | | | | |
| 8. | | | | | | | | | | |
| 9. | | | | | | | | | | |
| 10. | | | | | | | | | | |
| SUB TOTAL | | | | | 394204 | | | | | |
| TOTAL INPUTS | | | | | 859292 | | | | | |

| OUTPUTS | UNIT | AVG DWT (KG) | UNIT VALUE | QTY | TOTAL VALUE |
|---|---|---|---|---|---|
| TO OTHER SECTORS: | | | | | |
| 1. | | | | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| SUB TOTAL | | | | | |
| TO EXTERNAL DESTINATIONS: | | | | | |
| 1. RETAIL CUTS | $/KG | | 7.70 | 94024 | 723988 |
| 2. SAUSAGES & MINCE | $/KG | | 3.38 | 41748 | 141107 |
| 3. OFFAL | $/KG | | 3.29 | 553 | 1818 |
| 4. BONES & FAT | $/KG | | 0.07 | 4022 | 282 |
| SUB TOTAL | | | | 140347 | 867195 |
| TOTAL OUTPUTS | | | | | 867195 |
| VALUE ADDED | | | | | 7903 |

a/ ALL VALUES IN $'000

TABLE 39 CATTLE/EXPORT/LIVE ANIMALS a/ b/

CODE: 1802

| INPUTS | UNIT | AVG DWT (KG) | UNIT VALUE | QTY | TOTAL VALUE | OUTPUT CONV. FACTOR % 1. | 2. | 3. | 4. | 5. |
|---|---|---|---|---|---|---|---|---|---|---|
| FROM OTHER SECTORS: | | | | | | | | | | |
| 1. BULLS+STEERS | '000 HD | 274 | 2.22 | 44.9 | 27315 | 100 | | | | |
| 2. COWS+HEIFERS | '000 HD | 198 | 1.70 | 44.9 | 15091 | 100 | | | | |
| 3. | | | | | | | | | | |
| 4. | | | | | | | | | | |
| 5. | | | | | | | | | | |
| SUB TOTAL | | | | 89.8 | 42407 | | | | | |
| FROM EXTERNAL SOURCES: | | | | | | | | | | |
| 1. FREIGHT & HANDLING | $/HD | | 18.00 | 89.8 | 1616 | | | | | |
| 2. INSURANCE | $/HD | | 11.81 | 89.8 | 1060 | | | | | |
| 3. SHIPPING | $/HD | | 204.00 | 89.8 | 18312 | | | | | |
| 4. | | | | | | | | | | |
| 5. FINANCE | $/HD | | 6.25 | 89.8 | 561 | | | | | |
| 6. | | | | | | | | | | |
| 7. | | | | | | | | | | |
| 8. QUARANTINE&TESTING | $/HD | | 35.00 | 89.8 | 3142 | | | | | |
| 9. FODDER | $/HD | | 9.00 | 89.8 | 808 | | | | | |
| 10. | | | | | | | | | | |
| SUB TOTAL | | | | | 25499 | | | | | |
| TOTAL INPUTS | | | | | 67905 | | | | | |
| OUTPUTS | | | | | | | | | | |
| TO OTHER SECTORS: | | | | | | | | | | |
| 1. | | | | | | | | | | |
| 2. | | | | | | | | | | |
| 3. | | | | | | | | | | |
| 4. | | | | | | | | | | |
| 5. | | | | | | | | | | |
| SUB TOTAL | | | | | | | | | | |
| TO EXTERNAL DESTINATIONS: | | | | | | | | | | |
| 1. LIVE EXPORTS | | | 787 | 89.8 | 70600 | | | | | |
| 2. | | | | | | | | | | |
| 3. | | | | | | | | | | |
| 4. | | | | | | | | | | |
| SUB TOTAL | | | | 89.8 | 70600 | | | | | |
| TOTAL OUTPUTS | | | | | 70600 | | | | | |
| VALUE ADDED | | | | | 2695 | | | | | |

a/ ALL VALUES IN $'000

TABLE 10 CATTLE:PRICES, WEIGHTS AND YIELDS - ALL SECTORS

| | | | | | |
|---|---|---|---|---|---|
| | CALVES | 44 | 1.06 | | |
| | FEEDERS-HEAVY | 246 | 2.34 | | |
| | FEEDERS-LIGHT | 149 | 2.12 | | |
| 11110 | BULLS+STEERS | 245 | 2.10 | | |
| | COWS+HEIFERS | 200 | 1.59 | 1321 | 290.00 |
| | CALVES | 58 | 1.06 | | |
| | FEEDERS-HEAVY | 246 | 2.34 | | |
| | FEEDERS-LIGHT | 149 | 2.12 | | |
| 1121 | BULLS+STEERS | 329 | 2.10 | | |
| | COWS+HEIFERS | 200 | 1.77 | 2093 | 290.00 |
| | CALVES | 58 | 1.06 | | |
| | FEEDERS-HEAVY | 246 | 2.34 | | |
| | FEEDERS-LIGHT | 149 | 2.12 | | |
| 1122 | BULLS+STEERS | 324 | 2.14 | | |
| | COWS+HEIFERS | 200 | 1.90 | 2219 | 290.00 |
| | CALVES | 58 | 1.06 | | |
| | FEEDERS-HEAVY | 246 | 2.34 | | |
| | FEEDERS-LIGHT | 149 | 2.12 | | |
| 1123 | BULLS+STEERS | 330 | 2.14 | | |
| | COWS+HEIFERS | 200 | 1.90 | 1805 | 290.00 |
| | CALVES | 48 | 1.06 | | |
| | FEEDERS-HEAVY | 246 | 2.34 | | |
| | FEEDERS-LIGHT | 149 | 2.12 | | |
| 1124 | BULLS+STEERS | 269 | 2.95 | | |
| | COWS+HEIFERS | 190 | 1.43 | 743 | 290.00 |
| | CALVES | 78 | 1.06 | | |
| | FEEDERS-HEAVY | 246 | 2.34 | | |
| | FEEDERS-LIGHT | 149 | 2.12 | | |
| 1125 | BULLS+STEERS | 262 | 2.00 | | |
| | COWS+HEIFERS | 190 | 1.67 | 1555 | 290.00 |
| | CALVES | 78 | 1.06 | | |
| | FEEDERS-HEAVY | 246 | 2.34 | | |
| | FEEDERS-LIGHT | 149 | 2.12 | | |

TABLE 41 CATTLE: INPUT/OUTPUT TABLE: FARM SECTOR

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 5. FEEDERS-LIGHT | $/KG | 149 | 2.12 | 14 | 4313 | 1.00 | | | | | | | | | | | 1.00 |
| 1121 | 1. BULLS+STEERS | $/KG | 328.5 | 2.10 | 570 | 392414 | | | 0.85 | 0.14 | | | | | | | 0.014 | 1.00 |
| | 2. COWS+HEIFERS | $/KG | 200 | 1.77 | 325 | 114735 | | | 0.84 | 0.14 | | | | | | | 0.024 | 1.00 |
| | 3. CALVES | $/KG | 58 | 1.06 | 51 | 3115 | | | | 1.00 | | | | | | | | 1.00 |
| | 4. FEEDERS-HEAVY | $/KG | 216 | 2.34 | 38 | 21939 | | 1.00 | | | | | | | | | | 1.00 |
| | 5. FEEDERS-LIGHT | $/KG | 149 | 2.12 | 23 | 7109 | 1.00 | | | | | | | | | | | 1.00 |
| 1122 | 1. BULLS+STEERS | $/KG | 324 | 2.14 | 500 | 345619 | | | 0.86 | 0.14 | | | | | | | | 1.00 |
| | 2. COWS+HEIFERS | $/KG | 200 | 1.90 | 377 | 142724 | | | 0.86 | 0.14 | | | | | | | | 1.00 |
| | 3. CALVES | $/KG | 58 | 1.06 | 102 | 6279 | | | | 1.00 | | | | | | | | 1.00 |
| | 4. FEEDERS-HEAVY | $/KG | 216 | 2.34 | 20 | 11310 | | 1.00 | | | | | | | | | | 1.00 |
| | 5. FEEDERS-LIGHT | $/KG | 149 | 2.12 | 14 | 4313 | 1.00 | | | | | | | | | | | 1.00 |
| 1123 | 1. BULLS+STEERS | $/KG | 330 | 2.14 | 312 | 219617 | | | 0.84 | 0.14 | | | | | | | 0.025 | 1.00 |
| | 2. COWS+HEIFERS | $/KG | 200 | 1.90 | 196 | 74160 | | | 0.82 | 0.14 | | | | | | | 0.04 | 1.00 |
| | 3. CALVES | $/KG | 48 | 1.06 | 12 | 605 | | | | 1.00 | | | | | | | | 1.00 |
| | 4. FEEDERS-HEAVY | $/KG | 216 | 2.34 | | | | 1.00 | | | | | | | | | | 1.00 |
| | 5. FEEDERS-LIGHT | $/KG | 149 | 2.12 | | | 1.00 | | | | | | | | | | | 1.00 |
| 1124 | 1. BULLS+STEERS | $/KG | 267.5 | 2.95 | 386 | 304320 | | | 0.67 | 0.31 | | | | | | | 0.018 | 1.00 |
| | 2. COWS+HEIFERS | $/KG | 190 | 1.43 | 161 | 43644 | | | 0.65 | 0.30 | | | | | | | 0.044 | 1.00 |
| | 3. CALVES | $/KG | 78 | 1.06 | 5 | 448 | | | | 1.00 | | | | | | | | 1.00 |
| | 4. FEEDERS-HEAVY | $/KG | 216 | 2.34 | | | | 1.00 | | | | | | | | | | 1.00 |
| | 5. FEEDERS-LIGHT | $/KG | 149 | 2.12 | 34 | 10762 | 1.00 | | | | | | | | | | | 1.00 |
| 1125 | 1. BULLS+STEERS | $/KG | 262 | 2.00 | 124 | 64781 | | | 0.64 | 0.30 | | | | | | | 0.065 | 1.00 |
| | 2. COWS+HEIFERS | $/KG | 190 | 1.67 | 64 | 20364 | | | 0.60 | 0.28 | | | | | | | 0.125 | 1.00 |
| | 3. CALVES | $/KG | 78 | 1.06 | 2 | 178 | | | | 1.00 | | | | | | | | 1.00 |
| | 4. FEEDERS-HEAVY | $/KG | 216 | 2.34 | | | | 1.00 | | | | | | | | | | 1.00 |
| | 5. FEEDERS-LIGHT | $/KG | 149 | 2.12 | | | 1.00 | | | | | | | | | | | 1.00 |

| TOTAL INPUTS: | | 1201 | 1202 | 1301 | 1302 | 1400 | 1500 | 1600 | 1701 | 1702 | 1703 | 1802 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BULLS+STEERS | -AVG WEIGHT | | | 280 | 260 | | | | | | | 274 | |
| | -AVG UNIT PRICE | | | 2.19 | 2.22 | | | | | | | 2.22 | |
| | -TOTAL QTY | | | 2591 | 869 | | | | | | | 45 | |
| | -TOTAL VALUE | | | 1585952 | 501768 | | | | | | | 27315 | 2115035 |
| COWS+HEIFERS | -AVG WEIGHT | | | 200.311 | 200.57 | | | | | | | 197.6 | |
| | -AVG UNIT PRICE | | | 1.73 | 1.48 | | | | | | | 1.70 | |
| | -TOTAL QTY | | | 1810 | 638 | | | | | | | 45 | |
| | -TOTAL VALUE | | | 626287 | 215573 | | | | | | | 15091 | 856951 |
| CALVES | -AVG WEIGHT | | | | 38 | | | | | | | | |
| | -AVG UNIT PRICE | | | | 1.06 | | | | | | | | |
| | -TOTAL QTY | | | | 1217 | | | | | | | | |
| | -TOTAL VALUE | | | | 49452 | | | | | | | | 49452 |
| FEEDERS-HEAVY | -AVG WEIGHT | | 216 | | | | | | | | | | |
| | -AVG UNIT PRICE | | 2.34 | | | | | | | | | | |
| | -TOTAL QTY | | 327 | | | | | | | | | | |
| | -TOTAL VALUE | | 2E+05 | | | | | | | | | | 188389 |
| FEEDERS-LIGHT | -AVG WEIGHT | 149 | | | | | | | | | | | |
| | -AVG UNIT PRICE | 2.12 | | | | | | | | | | | |
| | -TOTAL QTY | 338 | | | | | | | | | | | |
| | -TOTAL VALUE | 1E+05 | | | | | | | | | | | 106822 |

TABLE 42 CATTLE: INPUT/OUTPUT TABLE: OTHER SECTORS

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OFFALS | -AVG UNIT PRICE | 0 | 0 | 0 | 0 | 1.86 | 0 | 1.90 | 0 | 1.96 | 0 | |
| | | -TOTAL QTY | 0 | 0 | 0 | 0 | 956 | 0 | 553 | 0 | 32463 | 0 | |
| | | -TOTAL VALUE | 0 | 0 | 0 | 0 | 1817 | 0 | 1051 | 0 | 63585 | 0 | 66453 |
| | OTHER BY-PRODUCTS | -AVG UNIT PRICE | 0 | 0 | 4.77 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | -TOTAL QTY | 0 | 0 | 27483 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | -TOTAL VALUE | 0 | 0 | 21387 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 21387 |
| | RAW HIDES-CATTLE | -AVG UNIT PRICE | 0 | 0 | 0 | 53.044 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | -TOTAL QTY | 0 | 0 | 0 | 6570 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | -TOTAL VALUE | 0 | 0 | 0 | 348503 | 0 | 0 | 0 | 0 | 0 | 0 | 348503 |
| | RAW SKINS CALVES | -AVG UNIT PRICE | 0 | 0 | 0 | 7.265 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | -TOTAL QTY | 0 | 0 | 0 | 1217 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | -TOTAL VALUE | 0 | 0 | 0 | 8840 | 0 | 0 | 0 | 0 | 0 | 0 | 8840 |
| -OTHER MEAT PROCESSING | SAUSAGES | -AVG UNIT PRICE | 0 | 0 | 0 | 0 | 0 | 0 | 2.525 | 0 | 0 | 0 | |
| | | -TOTAL QTY | 0 | 0 | 0 | 0 | 0 | 0 | 20749 | 0 | 0 | 0 | |
| | | -TOTAL VALUE | 0 | 0 | 0 | 0 | 0 | 0 | 52390 | 0 | 0 | 0 | 52390 |
| | 0 | -AVG UNIT PRICE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | -TOTAL QTY | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | -TOTAL VALUE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| -WHOLESALE | BONELESS PRIMAL | -AVG UNIT PRICE | 0 | 0 | 0 | 0 | 0 | 5.2100 | 5.2100 | 0 | 0 | 0 | |
| | | -TOTAL QTY | 0 | 0 | 0 | 0 | 0 | 86552 | 13661 | 0 | 0 | 0 | |
| | | -TOTAL VALUE | 0 | 0 | 0 | 0 | 0 | 451415 | 71291 | 0 | 0 | 0 | 522275 |
| | BONELESS OTHER | -AVG UNIT PRICE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | -TOTAL QTY | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | -TOTAL VALUE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | CARCASES | -AVG UNIT PRICE | 0 | 0 | 0 | 0 | 0 | 2.9100 | 2.9100 | 0 | 0 | 0 | |
| | | -TOTAL QTY | 0 | 0 | 0 | 0 | 0 | 103816 | 57352 | 0 | 0 | 0 | |
| | | -TOTAL VALUE | 0 | 0 | 0 | 0 | 0 | 535514 | 167397 | 0 | 0 | 0 | 703911 |
| | OFFALS | -AVG UNIT PRICE | 0 | 0 | 0 | 0 | 0 | 2.185 | 0 | 0 | 0 | 0 | |
| | | -TOTAL QTY | 0 | 0 | 0 | 0 | 0 | 956 | 0 | 0 | 0 | 0 | |
| | | -TOTAL VALUE | 0 | 0 | 0 | 0 | 0 | 2089 | 0 | 0 | 0 | 0 | 2050 |

TABLE 43 CATTLE: COST,PRICE AND TECHNICAL INDICES: FARM SECTOR

| CODE | 1111 | 1112 | 1113 | 1114 | 1115 | 1116 | 1117 | 1118 | 1119 | 11110 | 1121 | 1122 | 1123 | 1124 | 1125 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **L/STOCK ENTERPRISE** | | | | | | | | | | | | | | | |
| TURN-OFF % - 1. BULLS+STEERS | | | | | | | | | | | | | | | |
| 1. BEEF CATTLE | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 2. DAIRY CATTLE | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 3. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| TURN-OFF % - 2. COWS + HEIFERS | | | | | | | | | | | | | | | |
| 1. BEEF CATTLE | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 2. DAIRY CATTLE | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 3. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| TURN-OFF % - 3. CALVES | | | | | | | | | | | | | | | |
| 1. BEEF CATTLE | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 2. DAIRY CATTLE | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 3. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| LIVESTOCK POPULATION | | | | | | | | | | | | | | | |
| 1. BEEF CATTLE | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 2. DAIRY CATTLE | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 3. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| **INPUTS** | | | | | | | | | | | | | | | |
| VALUE | | | | | | | | | | | | | | | |
| EXTERNAL: 1. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 2. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 3. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 4. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 5. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 6. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 7. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 8. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 9. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 10. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 11. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| **OUTPUTS** | | | | | | | | | | | | | | | |
| AVG CWT | | | | | | | | | | | | | | | |
| TO OTHER SECT: 1. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 2. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 3. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 4. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 5. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| VALUE | | | | | | | | | | | | | | | |
| EXTERNAL: 1. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 2. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 3. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 4. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 5. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

REGION

| CODE | 1111 | 1112 | 1113 | 1114 | 1115 | 1116 | 1117 | 1118 | 1119 | 11110 | 1121 | 1122 | 1123 | 1124 | 1125 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **L/STOCK ENTERPRISE** | | | | | | | | | | | | | | | |
| TURN-OFF % - 4. FEEDERS-HEAVY | | | | | | | | | | | | | | | |
| 1. BEEF CATTLE | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 2. DAIRY CATTLE | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 3. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| TURN-OFF % - 5. FEEDERS-LIGHT STEERS | | | | | | | | | | | | | | | |
| 1. BEEF CATTLE | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 2. DAIRY CATTLE | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 3. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| TURN-OFF % - 6. FEEDERS-LIGHT HEIFERS | | | | | | | | | | | | | | | |
| 1. BEEF CATTLE | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 2. DAIRY CATTLE | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 3. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| **OUTPUTS** | | | | | | | | | | | | | | | |
| UNIT VALUE | | | | | | | | | | | | | | | |
| TO OTHER SECT: 1. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 2. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 3. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 4. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 5. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

TABLE 45 CATTLE: SUMMARY OF LIVESTOCK DATA BY REGION AVERAGE FOR YEARS 1987/88 AND 1988/89

| AGRIC REGION No. | CATTLE NUMBERS: BEEF TOTAL | BEEF COWS/HFRS | BEEF HFR CLVS | BEEF OTHR CLV | BEEF OTHER | DAIRY TOTAL | DAIRY COWS | SHEEP NUMBERS: TOTAL | EWES | WETHERS | TOTAL LAMBS a/ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 496589 | 245574 | 55811 | 77395 | 99342 | 111300 | 63599 | 5151374 | 2402933 | 1726295 | 971133 |
| 2 | 179704 | 99100 | 24997 | 25854 | 20156 | 1548 | 253 | 27768123 | 11611798 | 6463441 | 7104851 |
| 3 | 240559 | 132200 | 28111 | 27304 | 48315 | 28 | 17 | 2601117 | 746633 | 727292 | 553214 |
| 4 | 2164294 | 1143225 | 273203 | 303910 | 388734 | 1089859 | 728201 | 25327625 | 11915359 | 7415763 | 5625626 |
| 5 | 1846858 | 692079 | 268082 | 320182 | 306785 | 555137 | 360258 | 45578828 | 23407397 | 11402962 | 10565727 |
| 6 | 344519 | 116479 | 39164 | 49112 | 59899 | 2089 | 1172 | 10142351 | 6019591 | 1712783 | 2602680 |
| 7.C | 893763 | 302870 | 121557 | 134838 | 131656 | 267951 | 172351 | 2945488 | 1377194 | 951507 | 593826 |
| 7.I | 1288939 | 410865 | 191375 | 205352 | 206313 | 75345 | 44778 | 9359080 | 4274424 | 2962223 | 2128412 |
| 8.N | 2633594 | 1175791 | 305018 | 324265 | 742298 | 77370 | 48096 | 5050377 | 1957119 | 2017758 | 854883 |
| 8.S | 1050768 | 444732 | 140428 | 164392 | 208497 | 7571 | 2672 | 8630408 | 4424011 | 1892158 | 2216266 |
| 9 | 2759670 | 1582606 | 283370 | 293279 | 827311 | 233119 | 153318 | 14597 | 6375 | 6036 | 1623 |
| 10 | 1628028 | 888208 | 161206 | 172574 | 360915 | 4990 | 2723 | 5119239 | 2552855 | 1430761 | 890110 |
| 11 | 2758715 | 1468962 | 263643 | 280564 | 673570 | 316 | 62 | 4439283 | 2206611 | 1471033 | 887184 |
| 12 | 871294 | 527369 | 67478 | 76209 | 177767 | 2639 | 1901 | 280 | 100 | 100 | 75 |
| 13 | 416649 | 188044 | 61943 | 72614 | 82648 | 134635 | 90302 | 4839715 | 2312292 | 1254084 | 1224068 |
| TOTAL | 19573939 | 9418101 | 2285383 | 2507840 | 4334204 | 2563891 | 1669678 | 156967882 | 75205688 | 41434191 | 36219674 |

| AGRIC REGION No. | DISPOSALS a/: CATTLE TOTAL | CATTLE BULLS STEERS | CATTLE COWS HEIFERS | CATTLE CLVS<1 | SHEEP: SHEEP | SHEEP: LAMBS | BY-PRODUCTS: MILK ML | WOOL NUMBER SHORN | WOOL TOTAL KG SHORN/CRU | MATINGS: TO MERINO | TO CORR/POL | TOTAL MATINGS | LAMBS MRK MATING |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 296222 | 110571 | 77229 | 108423 | 1224161 | 566279 | 243 | 5408083 | 24931056 | 1288408 | 96910 | 1975992 | 741588 |
| 2 | 89804 | 39220 | 29452 | 21133 | 6092928 | 1372039 | 1 | 29722958 | 134183064 | 10961025 | 119679 | 11951452 | 4347513 |
| 3 | 55392 | 32335 | 17867 | 5191 | 308278 | 22142 | 0 | 3042653 | 11326637 | 1069140 | 125 | 1069340 | 423832 |
| 4 | 1481529 | 366319 | 408534 | 687362 | 5414169 | 3992905 | 2764 | 25933718 | 124502015 | 5381673 | 1139157 | 10272214 | 4250575 |
| 5 | 1158455 | 429397 | 299949 | 398509 | 9340391 | 7713785 | 1364 | 44486416 | 229525638 | 11930442 | 857738 | 20313777 | 8454578 |
| 6 | 92768 | 48715 | 29154 | 14700 | 1822666 | 565430 | 4 | 9544929 | 54669723 | 4683640 | 10008 | 4776822 | 1742159 |
| 7.C | 456023 | 112670 | 124831 | 218522 | 504340 | 439356 | 640 | 2779842 | 12870522 | 653764 | 14529 | 2350530 | 474030 |
| 7.I | 524760 | 213174 | 151318 | 154263 | 1489100 | 1739194 | 166 | 8338744 | 38333564 | 2223964 | 50343 | 3591118 | 1678287 |
| 8.N | 965621 | 541117 | 294889 | 129615 | 934598 | 240542 | 162 | 4476767 | 22159046 | 1442856 | 0 | 1566080 | 594169 |
| 8.S | 560271 | 329007 | 145027 | 86237 | 1711333 | 1119391 | 10 | 7583776 | 39743151 | 2879356 | 13886 | 3781402 | 1578289 |
| 9 | 952300 | 459639 | 338710 | 153951 | 797 | 1640 | 517 | 10778 | 45658 | 2854 | 0 | 4970 | 1403 |
| 10 | 489915 | 272218 | 170948 | 46750 | 1036054 | 104994 | 9 | 5035131 | 22731613 | 2005548 | 0 | 2015092 | 480685 |
| 11 | 531394 | 352225 | 155649 | 23521 | 762555 | 104401 | 0 | 4279910 | 20382107 | 1662328 | 0 | 1672827 | 520441 |
| 12 | 170115 | 108235 | 56095 | 5785 | 0 | 0 | 4 | 250 | 1018 | 0 | 0 | 0 | 25 |
| 13 | 228016 | 81358 | 67243 | 79416 | 933322 | 656525 | 324 | 4764097 | 19027804 | 905337 | 511899 | 2022479 | 88 |
| TOTAL | 8052582 | 3496395 | 2366892 | 2133374 | 31574690 | 18638621 | 6209 | 155408041 | 754432614 | 47090333 | 2814272 | 67364092 | 25496391 |

a/ INCLUDES TRANSFERS BETWEEN FARMS WITHIN THE LIVESTOCK INDUSTRY.

RESEARCH AND DEVELOPMENT INVESTMENT STUDY

# THE VALUE CHAIN MODEL FOR SHEEP

| Table No. | Table | Model Region No. | Code | Cell Address |
|---|---|---|---|---|
| | Input/Output Tables (Spreadsheet E) | | | |
| 36. | Sheep : Input/Output Table : Farm Sector | National | - | |
| | Input/Output Tables (Spreadsheet F) | | | |
| 37. | Sheep : Input/Output Table : Other Sectors | National | - | |
| | Technical Co-Efficients Table (Spreadsheet G) | | | |
| 38. | Sheep : Cost, Price and Technical Indices : Farm Sector | National | - | |
| | Technical Co-Efficients Table (Spreadsheet H) | | | |
| 39. | Sheep : Cost, Price and Technical Indices : Other Sectors | National | - | |
| | Livestock Data Base | | | |
| 40. | Summary of Livestock Data by Region | National | - | |
| 41. | Estimated Sheep Turnoff by Region | National | - | |

## TABLE 2 SHEEP VALUE CHAIN SUMMARY ($ MILLION)

| | | FARM | FEEDLOT | ABATTOIR | OMP | TANNERY | WHOLESALE | RETAIL | EXPORT | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| **INPUTS** | | | | | | | | | | |
| -OTHER SECTORS | 1. | 0 | 0 | 50 | 83 | 104 | 6 | 41 | 108 | 392 |
| | 2. | 0 | 0 | 324 | 0 | 77 | 350 | 505 | 108 | 1363 |
| | 3. | 0 | 0 | 122 | 12 | 0 | 2 | 2 | 6 | 144 |
| | 4. | 0 | 0 | 122 | 0 | 0 | 0 | 17 | 218 | 356 |
| | 5. | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 11 |
| SUB-TOTAL | | 0 | 0 | 628 | 96 | 181 | 358 | 564 | 439 | 2266 |
| -EXTERNAL | 1. | 298 | 0 | 267 | 28 | 39 | 11 | 312 | 26 | 980 |
| | 2. | 137 | 0 | 19 | 14 | 19 | 1 | 139 | 11 | 339 |
| | 3. | 161 | 0 | 18 | 9 | 15 | 1 | 87 | 146 | 437 |
| | 4. | 22 | 0 | 15 | 9 | 13 | 2 | 58 | 36 | 155 |
| | 5. | 85 | 0 | 16 | 5 | 1 | 8 | 156 | 7 | 278 |
| | 6. | 354 | 0 | 3 | 7 | 88 | 8 | 0 | 3 | 465 |
| | 7. | 290 | 0 | 13 | 0 | 21 | 2 | 0 | 3 | 329 |
| | 8. | 1399 | 0 | 6 | 0 | 0 | 0 | 0 | 2 | 1407 |
| | 9. | 376 | 0 | 16 | 0 | 0 | 0 | 0 | 16 | 408 |
| | 10. | 228 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 230 |
| | 11. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SUB-TOTAL | | 3350 | 0 | 376 | 72 | 197 | 32 | 751 | 251 | 5029 |
| TOTAL INPUTS | | 3350 | 0 | 1004 | 168 | 378 | 390 | 1315 | 690 | 7296 |
| **OUTPUTS** | | | | | | | | | | |
| -OTHER SECTORS | 1. | 54 | 0 | 197 | 17 | 0 | 41 | 0 | 0 | 308 |
| | 2. | 428 | 0 | 619 | 0 | 0 | 342 | 0 | 0 | 1389 |
| | 3. | 146 | 0 | 21 | 0 | 0 | 3 | 0 | 0 | 169 |
| | 4. | 218 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 218 |
| | 5. | 0 | 0 | 104 | 0 | 0 | 0 | 0 | 0 | 104 |
| | 6. | 0 | 0 | 77 | 0 | 0 | 0 | 0 | 0 | 77 |
| | 7. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SUB-TOTAL | | 846 | 0 | 1018 | 17 | 0 | 386 | 0 | 0 | 2266 |
| -EXTERNAL | 1. | 4831 | 0 | 32 | 59 | 96 | 33 | 1086 | 149 | 6286 |
| | 2. | 0 | 0 | 0 | 70 | 101 | 2 | 277 | 144 | 594 |
| | 3. | 0 | 0 | 0 | 62 | 238 | 0 | 3 | 7 | 310 |
| | 4. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 442 | 442 |
| SUB-TOTAL | | 4831 | 0 | 32 | 191 | 435 | 35 | 1366 | 743 | 7633 |
| TOTAL OUTPUTS | | 5677 | 0 | 1050 | 208 | 435 | 420 | 1366 | 743 | 9899 |
| VALUE ADDED | | 2327 | 0 | 46 | 40 | 57 | 30 | 51 | 52 | 2603 |

TABLE 4 SHEEP/FARM/TOTAL a/

CODE: 2100

| L/STOCK ENTERPRISE | UNIT | QTY | L/STOCK TURN-OFF % b W+H | L | O | X |
|---|---|---|---|---|---|---|
| 1. SHEEP | '000 HD | 156968 | | | | |
| 2. | | 0 | | | | |
| 3. | | 0 | | | | |
| 4. | | 0 | | | | |
| 5. | | 0 | | | | |
| | | 156968 | | | | |

| INPUTS | UNIT | AVG DWT (KG) | AVG UNIT VALUE | QTY | TOTAL VALUE |
|---|---|---|---|---|---|
| FROM EXTERNAL SOURCES: | | | | | |
| 1. PAST/FERT | $/HD | | 1.90 | 156968 | 297948 |
| 2. FODDER | $/HD | | 0.87 | 156968 | 137042 |
| 3. WAGES | $/HD | | 1.03 | 156968 | 161051 |
| 4. FREIGHT | $/HD | | 0.14 | 156968 | 21798 |
| 5. SELLING COSTS | $/HD | | 0.54 | 156968 | 84540 |
| 6. SHEARING & CRUTCH. | $/HD | | 2.26 | 156969 | 354444 |
| 7. WOOL DEDUCTIONS | $/HD | | 1.85 | 156968 | 289638 |
| 8. OTHER VAR. COSTS | $/HD | | 8.91 | 156969 | 1399245 |
| 9. INTEREST | $/HD | | 2.39 | 156968 | 375857 |
| 10. OVERHEAD COSTS | | | 0.00 | 0 | 228108 |
| 11. 0 | | 0 | 0.00 | 0 | 0 |
| TOTAL INPUTS | | | | | 3349671 |
| OUTPUTS | | | | | |
| TO OTHER SECTORS: | | | | | |
| 1. WETHERS+HOGGETS | $/HD | | 16.67 | 3219 | 53660 |
| 2. PRIME LAMBS | $/HD | | 25.42 | 16840 | 428118 |
| 3. SHEEP OTHER | $/HD | | 14.70 | 9943 | 146202 |
| 4. LIVE EXPORT | $/HD | | 34.49 | 6316 | 217815 |
| 5. 0 | | | 00 | 0 | 0 |
| SUB TOTAL | | | | 36319 | 845794 |
| TO EXTERNAL DESTINATIONS: | | | | | |
| 1. WOOL | $/KG | | 6.40 | 754433 | 4831216 |
| 2. | | | | | 0 |
| 3. | | | | | 0 |
| 4. | | | | | 0 |
| SUB TOTAL | | | | | 4831216 |
| TOTAL OUTPUTS | | | | | 5677010 |
| VALUE ADDED | | | | | 2327339 |

a/ ALL VALUES IN $'000

b/ W+H=WETHERS & HOGGETS, L=PRIME LAMBS, O=SHEEP OTHER, X=LIVE EXPORTS

TABLE 6 SHEEP/DMP/TOTAL a/ b/

CODE: 2400

| INPUTS | UNIT | AVG DWT (KG) | UNIT VALUE | QTY | TOTAL VALUE | OUTPUT CONV. FACT 1. | 2. | 3. | 4. |
|---|---|---|---|---|---|---|---|---|---|
| FROM OTHER SECTORS: | | | | | | | | | |
| 1. BONELESS MEAT | '000 KG | | 1.79 | 46773 | 83527 | | | | |
| 2. CARCASES | '000 KG | | 0.00 | 0 | 0 | | | | |
| 3. OFFALS | '000 KG | | 1.22 | 9832 | 11976 | | | | |
| 4. OTHER BYPRODUCTS | '000 KG | | 0.59 | 285 | 168 | | | | |
| 5. | | | | | | | | | |
| SUB TOTAL | | | | 56890 | 95672 | | | | |
| FROM EXTERNAL SOURCES: | | | | | | | | | |
| 1. RAW MATERIALS | $/KG | | 0.48 | 56890 | 27535 | | | | |
| 2. LABOUR | $/KG | | 0.25 | 56890 | 14223 | | | | |
| 3. SERVICES | $/KG | | 0.17 | 56890 | 9387 | | | | |
| 4. PACKAGING | $/KG | | 0.16 | 56890 | 9102 | | | | |
| 5. TRANSPORT | $/KG | | 0.09 | 56890 | 5120 | | | | |
| 6. OVERHEADS | 0 | | 0.00 | 0 | 7111 | | | | |
| 7. 0 | | | | 0 | 0 | | | | |
| 8. | | | | 0 | 0 | | | | |
| 9. | | | | 0 | 0 | | | | |
| 10. | | | | 0 | 0 | | | | |
| 11. | | | | 0 | 0 | | | | |
| SUB TOTAL | | | | | 72478 | | | | |
| TOTAL INPUTS | | | | | 168149 | | | | |
| OUTPUTS | | | | | | | | | |
| TO OTHER SECTORS: | | | | | | | | | |
| 1. SAUSAGES | $/KG PRODUCT | | 2.52 | 6582 | 16588 | | | | |
| 2. 0 | | | 0 | 0 | 0 | | | | |
| 3. | | | | 0 | 0 | | | | |
| 4. | | | | 0 | 0 | | | | |
| 5. | | | | 0 | 0 | | | | |
| SUB TOTAL | | | | 6582 | 16588 | | | | |
| TO EXTERNAL DESTINATIONS: | | | | | | | | | |
| 1. PET FOOD | $/KG PRODUCT | | 0.84 | 70402 | 59138 | | | | |
| 2. EMULSIFIED | $/KG PRODUCT | | 2.52 | 27783 | 70013 | | | | |
| 3. OTHER PRODUCTS b/ | $/KG PRODUCT | | 2.61 | 23742 | 61966 | | | | |
| 4. 0 | | | 0.00 | 0 | 0 | | | | |
| SUB TOTAL | | | | 121927 | 191117 | | | | |
| TOTAL OUTPUTS | | | | 128509 | 207704 | | | | |
| VALUE ADDED | | | | | 39555 | | | | |

a/ ALL VALUES IN $'000

b/ OTHER PRODUCTS INCLUDES CANNED MEATS, CONTINENTAL PRODUCTS, CORNED, SALTED AND ROAST MEAT AND MEAT PIES

TABLE 8 SHEEP/WHOLESALE/TOTAL a/

CODE: 2600

| INPUTS | UNIT | AVG DWT (KG) | UNIT VALUE | QTY | TOTAL VALUE | OUTPUT CONV. FACTOR % 1. | 2. | 3. | 4. |
|---|---|---|---|---|---|---|---|---|---|
| FROM OTHER SECTORS: | | | | | | | | | |
| 1. BONELESS MEAT | '000 KG | | 1.99 | 3175 | 6317 | | | | |
| 2. CARCASES | '000 KG | | 1.76 | 198327 | 349797 | | | | |
| 3. OFFALS | '000 KG | | 1.13 | 1943 | 2196 | | | | |
| 4. | | | 0.00 | 0 | 0 | | | | |
| 5. | | | | 0 | 0 | | | | |
| SUB TOTAL | | | | 203444 | 358309 | | | | |
| FROM EXTERNAL SOURCES: | | | | | | | | | |
| 1. BONING | $/KG | | 0.40 | 26452 | 10581 | | | | |
| 2. PACKAGING | $/KG | | 0.02 | 26452 | 529 | | | | |
| 3. SERVICES | $/KG | | 0.02 | 26452 | 529 | | | | |
| 4. COLD STORE | $/KG | | 0.01 | 203444 | 2034 | | | | |
| 5. TRANSPORT | $/KG | | 0.04 | 203444 | 8138 | | | | |
| 6. NON-BONING LABOUR | $/KG | | 0.04 | 203444 | 8138 | | | | |
| 7. OVERHEADS | | | | 0 | 2034 | | | | |
| 8. | | | | 0 | 0 | | | | |
| 9. | | | | 0 | 0 | | | | |
| 10. | | | | 0 | 0 | | | | |
| SUB TOTAL | | | | | 31983 | | | | |
| TOTAL INPUTS | | | | | 390292 | | | | |
| **OUTPUTS** | | | | | | | | | |
| TO OTHER SECTORS: | | | | | | | | | |
| 1. BONELESS MEAT | | | 2.49 | 16340 | 40647 | | | | |
| 2. CARCASES | | | 2.28 | 150530 | 342456 | | | | |
| 3. OFFALS | | | 1.30 | 1943 | 2525 | | | | |
| 4. | | | | 0 | 0 | | | | |
| 5. | | | | 0 | 0 | | | | |
| SUB TOTAL | | | | 168814 | 385628 | | | | |
| TO EXTERNAL DESTINATIONS: | | | | | | | | | |
| 1. OTHER RETAIL - MEAT | | | 2.49 | 13286 | 33049 | | | | |
| 2. BONES & FAT | | | 0.07 | 21618 | 1513 | | | | |
| 3. | | | 0.00 | 0 | 0 | | | | |
| 4. | | | | | 0 | | | | |
| SUB TOTAL | | | | 34904 | 34562 | | | | |
| TOTAL OUTPUTS | | | | 203717 | 420190 | | | | |
| VALUE ADDED | | | | | 29897 | | | | |

a/ ALL VALUES IN $'000

TABLE 10 SHEEP/EXPORT/TOTAL a/

CODE: 2800

| INPUTS | UNIT | AVG DWT (KG) | UNIT VALUE | QTY | TOTAL VALUE | OUTPUT CONV. FACTOR % 1. | 2. | 3. | 4. |
|---|---|---|---|---|---|---|---|---|---|
| FROM OTHER SECTORS: | | | | | | | | | |
| 1. BONELESS MEAT | '000 KG | | 1.99 | 54179 | 107816 | | | | |
| 2. CARCASES | '000 KG | | 1.94 | 55495 | 107661 | | | | |
| 3. OFFALS | '000 KG | | 1.35 | 4408 | 5951 | | | | |
| 4. LIVE EXPORT | '000 HD | | 34.49 | 6316 | 217815 | | | | |
| 5. | | | | 0 | 0 | | | | |
| SUB TOTAL | | | | 120398 | 439242 | | | | |
| FROM EXTERNAL SOURCES: | | | | | | | | | |
| 1. FREIGHT & HANDLING | $/KG | | 0.22 | 120398 | 25896 | | | | |
| 2. INSURANCE | $/KG | | 0.09 | 120398 | 10878 | | | | |
| 3. SHIPPING | $/KG | | 2.25 | 64903 | 145885 | | | | |
| 4. SHIPPING CARCASSES | $/KG | | 0.65 | 55495 | 36072 | | | | |
| 5. FINANCE | $/KG | | 0.06 | 120398 | 7330 | | | | |
| 6. LEVIES | $/KG | | 0.03 | 114082 | 3422 | | | | |
| 7. COMMISSION | $/KG | | 0.03 | 114082 | 3422 | | | | |
| 8. QUARAN./AMLC LEVY | $/HD | | 0.33 | 6316 | 2078 | | | | |
| 9. FODDER | $/HD | | 2.58 | 6316 | 16314 | | | | |
| 10. 0 | | | 0.00 | 0 | 0 | | | | |
| SUB TOTAL | | | | | 251297 | | | | |
| TOTAL INPUTS | | | | | 690540 | | | | |
| OUTPUTS | | | | | | | | | |
| TO OTHER SECTORS: | | | | | | | | | |
| 1. | | | | 0 | 0 | | | | |
| 2. | | | | 0 | 0 | | | | |
| 3. | | | | 0 | 0 | | | | |
| 4. | | | | 0 | 0 | | | | |
| 5. | | | | 0 | 0 | | | | |
| SUB TOTAL | | | | | 0 | | | | |
| TO EXTERNAL DESTINATIONS: | | | | | | | | | |
| 1. BONELESS MEAT | $/KG | | 2.75 | 54179 | 148992 | | | | |
| 2. CARCASES | $/KG | | 2.60 | 55495 | 144288 | | | | |
| 3. OFFALS | $/KG | | 1.67 | 4408 | 7362 | | | | |
| 4. LIVE EXPORTS | $/HD | | 70.00 | 6316 | 442120 | | | | |
| SUB TOTAL | | | | | 742761 | | | | |
| TOTAL OUTPUTS | | | | | 742761 | | | | |
| VALUE ADDED | | | | | 52221 | | | | |

a/ ALL VALUES IN $'000

TABLE 12 SHEEP/FARM/SOUTH/WESTERN WHEAT-SHEEP a/

CODE: 2112

| L/STOCK ENTERPRISE | UNIT | QTY | TURN-OFF % b/ W+H | L | O | X |
|---|---|---|---|---|---|---|
| 1. SHEEP | '000 HD | 27768 | 3.1 | 2.7 | 4.5 | 6.7 |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |
| 5. | | | | | | |
| | | 27768 | | | | |

| INPUTS | UNIT | AVG DWT (KG) | UNIT VALUE | QTY | TOTAL VALUE |
|---|---|---|---|---|---|
| FROM EXTERNAL SOURCES: | | | | | |
| 1. PAST/FERT | $/HD | | 3.83 | 27768 | 106352 |
| 2. FODDER | $/HD | | 1.46 | 27768 | 40541 |
| 3. WAGES | $/HD | | 0.96 | 27768 | 26657 |
| 4. FREIGHT | $/HD | | 0.12 | 27768 | 3332 |
| 5. SELLING COSTS | $/HD | | 0.25 | 27768 | 6942 |
| 6. SHEARING & CRUTCH. | $/HD | | 2.17 | 27768 | 60257 |
| 7. WOOL DEDUCTIONS | $/HD | | 1.67 | 27768 | 46373 |
| 8. OTHER VAR. COSTS | $/HD | | 10.86 | 27768 | 301562 |
| 9. INTEREST | $/HD | | 2.68 | 27768 | 74419 |
| 10. OVERHEAD COSTS | | | | | 42208 |
| TOTAL INPUTS | | | | | 708643 |
| **OUTPUTS** | | | | | |
| TO OTHER SECTORS: | | | | | |
| 1. WETHERS+HOGGETS | $/KG | 19 | 1.07 | 852 | 17315 |
| 2. PRIME LAMBS | $/KG | 15 | 1.51 | 744 | 16843 |
| 3. SHEEP OTHER | $/KG | 18 | 0.74 | 1237 | 16475 |
| 4. LIVE EXPORT | $/KG | 25 | 1.60 | 1869 | 74760 |
| 5. | | | | | |
| 6. | | | | | |
| 7. | | | | | |
| SUB TOTAL | | | | 4701 | 125392 |
| TO EXTERNAL DESTINATIONS: | | | | | |
| 1. WOOL | $/KG | | 6.60 | 134183 | 884937 |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| SUB TOTAL | | | | | 884937 |
| TOTAL OUTPUTS | | | | | 1010330 |
| VALUE ADDED | | | | | 301687 |

a/ ALL VALUES IN $'000

b/ W+H=WETHERS & HOGGETS, L=PRIME LAMBS, O=SHEEP OTHER, X=LIVE EXPORTS

TABLE 14 SHEEP/FARM/SOUTH/TASMANIA a/

CODE: 2114

| L/STOCK ENTERPRISE | UNIT | QTY | TURN-OFF % b/ W+H | L | O | X |
|---|---|---|---|---|---|---|
| 1. SHEEP | '000 HD | 4840 | 2.5 | 12.6 | 5.4 | 3.8 |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |
| 5. | | | | | | |
| | | 4840 | | | | |

| INPUTS | UNIT | AVG DWT (KG) | UNIT VALUE | QTY | TOTAL VALUE |
|---|---|---|---|---|---|
| FROM EXTERNAL SOURCES: | | | | | |
| 1. PAST/FERT | $/HD | | 2.49 | 4840 | 12051 |
| 2. FODDER | $/HD | | 0.51 | 4840 | 2468 |
| 3. WAGES | $/HD | | 2.02 | 4840 | 9776 |
| 4. FREIGHT | $/HD | | 0.07 | 4840 | 339 |
| 5. SELLING COSTS | $/HD | | 0.60 | 4840 | 2904 |
| 6. SHEARING & CRUTCH. | $/HD | | 2.09 | 4840 | 10115 |
| 7. WOOL DEDUCTIONS | $/HD | | 1.80 | 4840 | 8711 |
| 8. OTHER VAR. COSTS | $/HD | | 7.97 | 4840 | 38573 |
| 9. INTEREST | $/HD | | 2.48 | 4840 | 12002 |
| 10. OVERHEAD COSTS | | | | | 6969 |
| TOTAL INPUTS | | | | | 103908 |
| OUTPUTS | | | | | |
| TO OTHER SECTORS: | | | | | |
| 1. WETHERS+HOGGETS | $/KG | 20 | 0.60 | 121 | 1453 |
| 2. PRIME LAMBS | $/KG | 16 | 1.35 | 608 | 12727 |
| 3. SHEEP OTHER | $/KG | 19 | 0.73 | 259 | 3576 |
| 4. LIVE EXPORT | $/KG | 25 | 1.25 | 185 | 5781 |
| 5. | | | | | |
| SUB TOTAL | | | | 1174 | 23537 |
| TO EXTERNAL DESTINATIONS: | | | | | |
| 1. WOOL | $/KG | | 6.55 | 19028 | 124632 |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| SUB TOTAL | | | | | 124632 |
| TOTAL OUTPUTS | | | | | 148169 |
| VALUE ADDED | | | | | 44261 |

a/ ALL VALUES IN $'000

b/ W+H=WETHERS & HOGGETS, L=PRIME LAMBS, O=SHEEP OTHER, X=LIVE EXPORTS

TABLE 16 SHEEP/FARM/SOUTH/SOUTHERN WHEAT-SHEEP a/

CODE: 2116

| L/STOCK ENTERPRISE | UNIT | QTY | TURN-OFF % b/ W+H | L | O | X |
|---|---|---|---|---|---|---|
| 1. SHEEP | '000 HD | 45579 | 0.4 | 16.7 | 7.2 | 5.0 |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |
| 5. | | | | | | |
| | | 45579 | | | | |

| INPUTS | UNIT | AVG DWT (KG) | UNIT VALUE | QTY | TOTAL VALUE |
|---|---|---|---|---|---|
| FROM EXTERNAL SOURCES: | | | | | |
| 1. PAST/FERT | $/HD | | 1.72 | 45579 | 78396 |
| 2. FODDER | $/HD | | 0.67 | 45579 | 30538 |
| 3. WAGES | $/HD | | 1.19 | 45579 | 54239 |
| 4. FREIGHT | $/HD | | 0.12 | 45579 | 5469 |
| 5. SELLING COSTS | $/HD | | 0.55 | 45579 | 25068 |
| 6. SHEARING & CRUTCH. | $/HD | | 1.90 | 45579 | 86600 |
| 7. WOOL DEDUCTIONS | $/HD | | 1.67 | 45579 | 76117 |
| 8. OTHER VAR. COSTS | $/HD | | 9.87 | 45579 | 449863 |
| 9. INTEREST | $/HD | | 3.06 | 45579 | 139471 |
| 10. OVERHEAD COSTS | | | | | 75205 |
| TOTAL INPUTS | | | | | 1020966 |

| OUTPUTS | UNIT | AVG DWT (KG) | UNIT VALUE | QTY | TOTAL VALUE |
|---|---|---|---|---|---|
| TO OTHER SECTORS: | | | | | |
| 1. WETHERS+HOGGETS | $/KG | 21 | 0.74 | 165 | 2564 |
| 2. PRIME LAMBS | $/KG | 18 | 1.50 | 7622 | 205797 |
| 3. SHEEP OTHER | $/KG | 20 | 0.77 | 3281 | 50522 |
| 4. LIVE EXPORT | $/KG | 25 | 1.25 | 2277 | 71156 |
| 5. | | | | | |
| SUB TOTAL | | | | 13345 | 330039 |
| TO EXTERNAL DESTINATIONS: | | | | | |
| 1. WOOL | $/KG | | 5.96 | 229526 | 1367973 |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| SUB TOTAL | | | | | 1367973 |
| TOTAL OUTPUTS | | | | | 1698012 |
| VALUE ADDED | | | | | 677046 |

a/ ALL VALUES IN $'000

b/ W+H=WETHERS & HOGGETS, L=PRIME LAMBS, O=SHEEP OTHER, X=LIVE EXPORTS

TABLE 18 SHEEP/FARM/SOUTH/EASTERN HIGH RAINFALL, T/LANDS a/

CODE: 2118

| L/STOCK ENTERPRISE | UNIT | QTY | TURN-OFF % b/ W+H | L | O | X |
|---|---|---|---|---|---|---|
| 1. SHEEP | '000 HD | 9359 | 2.9 | 14.7 | 6.4 | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |
| 5. | | | | | | |
| | | 9359 | | | | |

| INPUTS | UNIT | AVG DWT (KG) | UNIT VALUE | QTY | TOTAL VALUE |
|---|---|---|---|---|---|
| FROM EXTERNAL SOURCES: | | | | | |
| 1. PAST/FERT | $/HD | | 1.58 | 9359 | 14787 |
| 2. FODDER | $/HD | | 0.65 | 9359 | 6083 |
| 3. WAGES | $/HD | | 0.84 | 9359 | 7862 |
| 4. FREIGHT | $/HD | | 0.14 | 9359 | 1310 |
| 5. SELLING COSTS | $/HD | | 0.70 | 9359 | 6551 |
| 6. SHEARING & CRUTCH. | $/HD | | 2.38 | 9359 | 22275 |
| 7. WOOL DEDUCTIONS | $/HD | | 2.06 | 9359 | 19280 |
| 8. OTHER VAR. COSTS | $/HD | | 8.51 | 9359 | 79646 |
| 9. INTEREST | $/HD | | 1.71 | 9359 | 16004 |
| 10. OVERHEAD COSTS | | | | | 11137 |
| TOTAL INPUTS | | | | | 184935 |
| **OUTPUTS** | | | | | |
| TO OTHER SECTORS: | | | | | |
| 1. WETHERS+HOGGETS | $/KG | 22 | 0.68 | 273 | 3967 |
| 2. PRIME LAMBS | $/KG | 17 | 1.37 | 1378 | 31969 |
| 3. SHEEP OTHER | $/KG | 20 | 0.76 | 599 | 9142 |
| 4. LIVE EXPORT | $/KG | | | | |
| 5. OTHER | | | | | |
| SUB TOTAL | | | | 2250 | 45077 |
| TO EXTERNAL DESTINATIONS: | | | | | |
| 1. WOOL | $/KG | | 7.65 | 38334 | 293060 |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| SUB TOTAL | | | | | 293060 |
| TOTAL OUTPUTS | | | | | 338137 |
| VALUE ADDED | | | | | 153202 |

a/ ALL VALUES IN $'000

b/ W+H=WETHERS & HOGGETS, L=PRIME LAMBS, O=SHEEP OTHER, X=LIVE EXPORTS

TABLE 20 SHEEP/FARM/SOUTH/NORTHERN WHEAT-SHEEP, SOUTH a/

CODE: 21110

| L/STOCK ENTERPRISE | UNIT | QTY | TURN-OFF % b/ W+H | L | O | X |
|---|---|---|---|---|---|---|
| 1. SHEEP | '000 HD | 8630 | 4.6 | 10.6 | 7.2 | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |
| 5. | | | | | | |
| | | 8630 | | | | |

| INPUTS | UNIT | AVG DWT (KG) | UNIT VALUE | QTY | TOTAL VALUE |
|---|---|---|---|---|---|
| FROM EXTERNAL SOURCES: | | | | | |
| 1. PAST/FERT | $/HD | | 1.58 | 8630 | 13636 |
| 2. FODDER | $/HD | | 0.65 | 8630 | 5610 |
| 3. WAGES | $/HD | | 0.84 | 8630 | 7250 |
| 4. FREIGHT | $/HD | | 0.14 | 8630 | 1208 |
| 5. SELLING COSTS | $/HD | | 0.70 | 8630 | 6041 |
| 6. SHEARING & CRUTCH. | $/HD | | 2.38 | 8630 | 20540 |
| 7. WOOL DEDUCTIONS | $/HD | | 2.06 | 8630 | 17779 |
| 8. OTHER VAR. COSTS | $/HD | | 8.51 | 8630 | 73445 |
| 9. INTEREST | $/HD | | 1.71 | 8630 | 14758 |
| 10. OVERHEAD COSTS | | | | | 10270 |
| TOTAL INPUTS | | | | | 170537 |
| OUTPUTS | | | | | |
| TO OTHER SECTORS: | | | | | |
| 1. WETHERS+HOGGETS | $/KG | 22 | 0.68 | 393 | 5843 |
| 2. PRIME LAMBS | $/KG | 17 | 1.37 | 913 | 21194 |
| 3. SHEEP OTHER | $/KG | 20 | 0.91 | 620 | 11322 |
| 4. LIVE EXPORT | $/KG | | | | |
| 5. OTHER | | | | | |
| SUB TOTAL | | | | 1927 | 38359 |
| TO EXTERNAL DESTINATIONS: | | | | | |
| 1. WOOL | $/KG | | 6.89 | 39743 | 273830 |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| SUB TOTAL | | | | | 273830 |
| TOTAL OUTPUTS | | | | | 312189 |
| VALUE ADDED | | | | | 141652 |

a/ ALL VALUES IN $'000
b/ W+H=WETHERS & HOGGETS, L=PRIME LAMBS, O=SHEEP OTHER, X=LIVE EXPORTS

TABLE 22 SHEEP/FARM/NORTH/NORTH EASTERN MIXED a/

CODE: 2122

| L/STOCK ENTERPRISE | UNIT | QTY | TURN-OFF % b/ W+H | L | O | X |
|---|---|---|---|---|---|---|
| 1. SHEEP | '000 HD | 15 | | 16.3 | 2.4 | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |
| 5. | | | | | | |
| | | 15 | | | | |

| INPUTS | UNIT | AVG DWT (KG) | UNIT VALUE | QTY | TOTAL VALUE |
|---|---|---|---|---|---|
| FROM EXTERNAL SOURCES: | | | | | |
| 1. PAST/FERT | $/HD | | 0.09 | 15 | 1 |
| 2. FODDER | $/HD | | 1.98 | 15 | 29 |
| 3. WAGES | $/HD | | 0.68 | 15 | 10 |
| 4. FREIGHT | $/HD | | 0.27 | 15 | 4 |
| 5. SELLING COSTS | $/HD | | 0.46 | 15 | 7 |
| 6. SHEARING & CRUTCH. | $/HD | | 3.05 | 15 | 45 |
| 7. WOOL DEDUCTIONS | $/HD | | 1.91 | 15 | 28 |
| 8. OTHER VAR. COSTS | $/HD | | 5.68 | 15 | 83 |
| 9. INTEREST | $/HD | | 1.52 | 15 | 22 |
| 10. OVERHEAD COSTS | | | | | 18 |
| TOTAL INPUTS | | | | | 246 |
| **OUTPUTS** | | | | | |
| TO OTHER SECTORS: | | | | | |
| 1. WETHERS+HOGGETS | $/KG | | | | |
| 2. PRIME LAMBS | $/KG | 18 | 1.36 | 2 | 57 |
| 3. SHEEP OTHER | $/KG | 20 | 0.80 | 0.36 | 6 |
| 4. LIVE EXPORT | $/KG | | | | |
| 5. OTHER | | | | | |
| SUB TOTAL | | | | 3 | 62 |
| TO EXTERNAL DESTINATIONS: | | | | | |
| 1. WOOL | $/KG | | 6.23 | 46 | 284 |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| SUB TOTAL | | | | | 284 |
| TOTAL OUTPUTS | | | | | 347 |
| VALUE ADDED | | | | | 100 |

a/ ALL VALUES IN $'000

b/ W+H=WETHERS & HOGGETS, L=PRIME LAMBS, O=SHEEP OTHER, X=LIVE EXPORTS

TABLE 24  SHEEP/FARM/NORTH/CENTRAL PASTORAL a/

CODE: 2124

| L/STOCK ENTERPRISE | UNIT | QTY | TURN-OFF % b/ W+H | L | O | X |
|---|---|---|---|---|---|---|
| 1. SHEEP | '000 HD | 4439 | 3.1 | 0.3 | 7.0 | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |
| 5. | | | | | | |
| | | 4439 | | | | |

| INPUTS | UNIT | AVG DWT (KG) | UNIT VALUE | QTY | TOTAL VALUE |
|---|---|---|---|---|---|
| FROM EXTERNAL SOURCES: | | | | | |
| 1. PAST/FERT | $/HD | | 0.03 | 4439 | 133 |
| 2. FODDER | $/HD | | 0.34 | 4439 | 1509 |
| 3. WAGES | $/HD | | 1.03 | 4439 | 4572 |
| 4. FREIGHT | $/HD | | 0.22 | 4439 | 977 |
| 5. SELLING COSTS | $/HD | | 0.38 | 4439 | 1687 |
| 6. SHEARING & CRUTCH. | $/HD | | 3.02 | 4439 | 13407 |
| 7. WOOL DEDUCTIONS | $/HD | | 2.09 | 4439 | 9278 |
| 8. OTHER VAR. COSTS | $/HD | | 2.84 | 4439 | 12608 |
| 9. INTEREST | $/HD | | 1.01 | 4439 | 4484 |
| 10. OVERHEAD COSTS | | | | | 3463 |
| TOTAL INPUTS | | | | | 52118 |
| **OUTPUTS** | | | | | |
| TO OTHER SECTORS: | | | | | |
| 1. WETHERS+HOGGETS | $/KG | 20 | 0.74 | 137 | 2029 |
| 2. PRIME LAMBS | $/KG | 17 | 1.36 | 12 | 272 |
| 3. SHEEP OTHER | $/KG | 19 | 0.70 | 309 | 3982 |
| 4. LIVE EXPORT | $/KG | | | | |
| 5. | | | | | |
| SUB TOTAL | | | | 459 | 6283 |
| TO EXTERNAL DESTINATIONS: | | | | | |
| 1. WOOL | $/KG | | 6.96 | 20382 | 141859 |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| SUB TOTAL | | | | | 141859 |
| TOTAL OUTPUTS | | | | | 148143 |
| VALUE ADDED | | | | | 96025 |

a/ ALL VALUES IN $'000

b/ W+H=WETHERS & HOGGETS, L=PRIME LAMBS, O=SHEEP OTHER, X=LIVE EXPORTS

TABLE 26 SHEEP/ABATTOIR/MIXED EXPORT a/

CODE: 2301

| INPUTS | UNIT | AVG DWT (KG) | UNIT VALUE | QTY | TOTAL VALUE | OUTPUT CONV. FACTOR % 1. | 2. | 3. | 4. | 5. | 6. | 1. | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FROM OTHER SECTORS: | | | | | | | | | | | | | |
| 1. WETHERS+HOGGETS | '000 HD | 20 | 0.82 | 2214 | 37117 | 50.0 | | 2.98 | 0.10 | | | 6.9 | 59.98 |
| 2. WETHERS+HOGGETS | '000 HD | 20 | 0.82 | 246 | 4124 | | 100 | 2.98 | 0.10 | | | 13.2 | 116.23 |
| 3. PRIME LAMBS | '000 HD | 18 | 1.45 | 4275 | 108692 | | 100 | 3.16 | | | | 16.3 | 119.48 |
| 4. SHEEP OTHER | '000 HD | 20 | 0.75 | 6931 | 101525 | 50.0 | | 2.98 | | | | 25.7 | 78.64 |
| 5. SHEEP OTHER | '000 HD | 20 | 0.75 | 770 | 11281 | | 100 | 2.98 | | | | 14.6 | 117.61 |
| SUB TOTAL | | | | 14437 | 262739 | | | | | | | | |
| FROM EXTERNAL SOURCES: | | | | | | | | | | | | | |
| 1. LABOUR | $/HD | | 10.80 | 14437 | 155917 | | | | | | | | |
| 2. PACKAGING | $/HD | | 1.07 | 14437 | 15447 | | | | | | | | |
| 3. SERVICES | $/HD | | 0.75 | 14437 | 10828 | | | | | | | | |
| 4. AQIS | $/HD | | 0.50 | 14437 | 7218 | | | | | | | | |
| 5. AMLC | $/HD | | 0.53 | 14437 | 7651 | | | | | | | | |
| 6. CONSUMABLES | $/HD | | 0.12 | 14437 | 1732 | | | | | | | | |
| 7. GENERAL | | | | | 8452 | | | | | | | | |
| 8. INTEREST-W/CAPITAL | | | | | 3780 | | | | | | | | |
| 9. REPAIRS | | | | | 2700 | | | | | | | | |
| 10. INTEREST-DEBT | | | | | 1500 | | | | | | | | |
| 11. | | | | | | | | | | | | | |
| SUB TOTAL | | | | | 215226 | | | | | | | | |
| TOTAL INPUTS | | | | | 477964 | | | | | | | | |
| OUTPUTS | | | | | | | | | | | | | |
| TO OTHER SECTORS: | | | | | | | | | | | | | |
| 1. BONELESS MEAT | $/KG | | 1.99 | 90284 | 179665 | | | | | | | | |
| 2. CARCASES | $/KG | | 1.94 | 94924 | 184153 | | | | | | | | |
| 3. OFFALS | $/KG | | 1.35 | 8344 | 11265 | | | | | | | | |
| 4. OTHER BYPRODUCTS | $/KG | | 0.60 | 50 | 30 | | | | | | | | |
| 5. RAW SKINS-LAMB | $/SKIN | | 6.35 | 4275 | 27148 | | | | | | | | |
| 6. RAW SKINS-SHEEP | $/SKIN | | 5.90 | 10161 | 59953 | | | | | | | | |
| 7. | | | | | | | | | | | | | |
| SUB TOTAL | | | | 193603 | 462214 | | | | | | | | |
| TO EXTERNAL DESTINATIONS: | | | | | | | | | | | | | |
| 1. RENDERED BYPRODUCT | $/KG | | 0.35 | 52916 | 18732 | | | | | | | | |
| 2. | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | |
| SUB TOTAL | | | | | 18732 | | | | | | | | |
| TOTAL OUTPUTS | | | | | 480946 | | | | | | | | |
| VALUE ADDED | | | | | 2982 | | | | | | | | |

a/ ALL VALUES IN $'000

TABLE 28 SHEEP/OTHER MEAT PROCESSING a/ b/

CODE: 2400

| INPUTS | UNIT | AVG DWT (KG) | UNIT VALUE | QTY | TOTAL VALUE | OUTPUT CONV. FACTOR % 1. | 1. | 2. | 3. | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| FROM OTHER SECTORS: | | | | | | | | | | |
| 1. BONELESS MEAT | '000 KG | | 1.79 | 46773 | 83527 | 12.6 | 142 | 33.9 | 50.8 | 239 |
| 2. CARCASES | '000 KG | | | | | | | | | |
| 3. OFFALS | '000 KG | | 1.22 | 9832 | 11976 | 7 | 42 | 118 | | 167 |
| 4. OTHER BYPRODUCTS | '000 KG | | 0.59 | 285 | 168 | | 40 | 126 | | 166 |
| 5. | | | | | | | | | | |
| SUB TOTAL | | | | 56890 | 95672 | | | | | |
| FROM EXTERNAL SOURCES: | | | | | | | | | | |
| 1. RAW MATERIALS | $/KG | | 0.48 | 56890 | 27535 | | | | | |
| 2. LABOUR | $/KG | | 0.25 | 56890 | 14223 | | | | | |
| 3. SERVICES | $/KG | | 0.17 | 56890 | 9387 | | | | | |
| 4. PACKAGING | $/KG | | 0.16 | 56890 | 9102 | | | | | |
| 5. TRANSPORT | $/KG | | 0.09 | 56890 | 5120 | | | | | |
| 6. OVERHEADS | | | | | 7111 | | | | | |
| 7. | | | | | | | | | | |
| 8. | | | | | | | | | | |
| 9. | | | | | | | | | | |
| 10. | | | | | | | | | | |
| 11. | | | | | | | | | | |
| SUB TOTAL | | | | | 72478 | | | | | |
| TOTAL INPUTS | | | | | 168149 | | | | | |
| OUTPUTS | | | | | | | | | | |
| TO OTHER SECTORS: | | | | | | | | | | |
| 1. SAUSAGES | $/KG PRODUCT | | 2.52 | 6582 | 16588 | | | | | |
| 2. | | | | | | | | | | |
| 3. | | | | | | | | | | |
| 4. | | | | | | | | | | |
| 5. | | | | | | | | | | |
| 6. | | | | | | | | | | |
| 7. | | | | | | | | | | |
| SUB TOTAL | | | | 6582 | 16588 | | | | | |
| TO EXTERNAL DESTINATIONS: | | | | | | | | | | |
| 1. PET FOOD | $/KG PRODUCT | | 0.84 | 70402 | 59138 | | | | | |
| 2. EMULSIFIED | $/KG PRODUCT | | 2.52 | 27783 | 70013 | | | | | |
| 3. OTHER PRODUCTS b/ | $/KG PRODUCT | | 2.61 | 23742 | 61966 | | | | | |
| 4. | | | | | | | | | | |
| SUB TOTAL | | | | 121927 | 191117 | | | | | |
| TOTAL OUTPUTS | | | | 128509 | 207704 | | | | | |
| VALUE ADDED | | | | | 39555 | | | | | |

a/ ALL VALUES IN $'000

b/ OTHER PRODUCTS INCLUDES CANNED MEATS, CONTINENTAL PRODUCTS, CORNED, SALTED AND ROAST MEAT AND MEAT PIES

TABLE 30 SHEEP/WHOLESALE a/

CODE: 2600

| INPUTS | UNIT | AVG DWT (KG) | UNIT VALUE | QTY | TOTAL VALUE | —OUTPUT CONV. FACTOR % 1. | 2. | 3. | 1. | 2. |
|---|---|---|---|---|---|---|---|---|---|---|
| FROM OTHER SECTORS: | | | | | | | | | | |
| 1. BONELESS MEAT | '000 KG | | 1.99 | 3175 | 6317 | 100 | | | | |
| 2. CARCASES | '000 KG | | 1.76 | 198327 | 349797 | 6.6 | 75.9 | | 6.7 | 10.9 |
| 3. OFFALS | '000 KG | | 1.13 | 1943 | 2196 | | | 100 | | |
| 4. | | | | | | | | | | |
| 5. | | | | | | | | | | |
| SUB TOTAL | | | | 203444 | 358309 | | | | | |
| FROM EXTERNAL SOURCES: | | | | | | | | | | |
| 1. BONING | $/KG | | 0.40 | 26452 | 10581 | | | | | |
| 2. PACKAGING | $/KG | | 0.02 | 26452 | 529 | | | | | |
| 3. SERVICES | $/KG | | 0.02 | 26452 | 529 | | | | | |
| 4. COLD STORE | $/KG | | 0.01 | 203444 | 2034 | | | | | |
| 5. TRANSPORT | $/KG | | 0.04 | 203444 | 8138 | | | | | |
| 6. NON-BONING LABOUR | $/KG | | 0.04 | 203444 | 8138 | | | | | |
| 7. OVERHEADS | | | | | 2034 | | | | | |
| 8. | | | | | | | | | | |
| 9. | | | | | | | | | | |
| 10. | | | | | | | | | | |
| 11. | | | | | | | | | | |
| SUB TOTAL | | | | | 31983 | | | | | |
| TOTAL INPUTS | | | | | 390292 | | | | | |
| OUTPUTS | | | | | | | | | | |
| TO OTHER SECTORS: | | | | | | | | | | |
| 1. BONELESS MEAT | $/KG | | 2.49 | 16340 | 40647 | | | | | |
| 2. CARCASES | $/KG | | 2.28 | 150530 | 342456 | | | | | |
| 3. OFFALS | $/KG | | 1.30 | 1943 | 2525 | | | | | |
| 4. | | | | | | | | | | |
| 5. | | | | | | | | | | |
| 6. | | | | | | | | | | |
| 7. | | | | | | | | | | |
| SUB TOTAL | | | | 168814 | 385628 | | | | | |
| TO EXTERNAL DESTINATIONS: | | | | | | | | | | |
| 1. OTHER RETAIL - MEAT | $/KG | | 2.49 | 13286 | 33049 | | | | | |
| 2. BONES & FAT | $/KG | | 0.07 | 21618 | 1513 | | | | | |
| 3. | | | | | | | | | | |
| 4. | | | | | | | | | | |
| SUB TOTAL | | | | 34904 | 34562 | | | | | |
| TOTAL OUTPUTS | | | | 203717 | 420190 | | | | | |
| VALUE ADDED | | | | | 29897 | | | | | |

a/ ALL VALUES IN $'000

TABLE 32 SHEEP/RETAIL/SUPERMARKET a/

CODE: 2702

| INPUTS | UNIT | AVG DWT (KG) | UNIT VALUE | QTY | TOTAL VALUE | OUTPUT CONV. FACTOR % 1. | 2. | 3. | 4. |
|---|---|---|---|---|---|---|---|---|---|
| FROM OTHER SECTORS: | | | | | | | | | |
| 1. BONELESS MEAT | '000 KG | | | | | | | | |
| 2. CARCASES | '000 KG | | 1.72 | 91064 | 156630 | 76.5 | 22.0 | | 1.5 |
| 3. OFFALS | '000 KG | | 1.13 | 486 | 549 | | | 98.0 | |
| 4. SAUSAGES | '000 KG | | 2.52 | 6582 | 16588 | | 99.0 | | |
| 5. | | | | | | | | | |
| SUB TOTAL | | | | 98132 | 173767 | | | | |
| FROM EXTERNAL SOURCES: | | | | | | | | | |
| 1. LABOUR | $/KG | | 1.56 | 69664 | 108676 | | | | |
| 2. RENT | $/KG | | 0.88 | 69664 | 61304 | | | | |
| 3. SERVICES | $/KG | | 0.69 | 69664 | 48068 | | | | |
| 4. PACKAGING | $/KG | | 0.59 | 69664 | 41102 | | | | |
| 5. OVERHEADS | | | | | 52248 | | | | |
| 6. | | | | | | | | | |
| 7. | | | | | | | | | |
| 8. | | | | | | | | | |
| 9. | | | | | | | | | |
| 10. | | | | | | | | | |
| 11. | | | | | | | | | |
| SUB TOTAL | | | | | 311398 | | | | |
| TOTAL INPUTS | | | | | 485165 | | | | |
| OUTPUTS | | | | | | | | | |
| TO OTHER SECTORS: | | | | | | | | | |
| 1. | | | | | | | | | |
| 2. | | | | | | | | | |
| 3. | | | | | | | | | |
| 4. | | | | | | | | | |
| 5. | | | | | | | | | |
| SUB TOTAL | | | | | | | | | |
| TO EXTERNAL DESTINATIONS: | | | | | | | | | |
| 1. RETAIL CUTS | $/KG | | 5.33 | 69664 | 371309 | | | | |
| 2. SAUSAGES & MINCE | $/KG | | 3.36 | 35137 | 118061 | | | | |
| 3. OFFAL | $/KG | | 2.09 | 476 | 994 | | | | |
| 4. BONES & FAT | $/KG | | 0.07 | 1366 | 96 | | | | |
| SUB TOTAL | | | | 106643 | 490461 | | | | |
| TOTAL OUTPUTS | | | | 106643 | 490461 | | | | |
| VALUE ADDED | | | | | 5296 | | | | |

a/ ALL VALUES IN $'000

TABLE 34 SHEEP/EXPORT/LIVE a/

CODE: 2802

| INPUTS | UNIT | AVG DWT (KG) | UNIT VALUE | QTY | TOTAL VALUE | OUTPUT CONV. FACT 1. | 2. | 3. | 4. |
|---|---|---|---|---|---|---|---|---|---|
| FROM OTHER SECTORS: | | | | | | | | | |
| 1. WETHERS+HOGGETS | '000 HD | | | | | | | | |
| 2. PRIME LAMBS | '000 HD | | | | | | | | |
| 3. SHEEP OTHER | '000 HD | | | | | | | | |
| 4. LIVE EXPORT | '000 HD | | 34.49 | 6316 | 217815 | | | | |
| 5. | | | | | | | | | |
| SUB TOTAL | | | | 6316 | 217815 | | | | |
| FROM EXTERNAL SOURCES: | | | | | | | | | |
| 1. FREIGHT & HANDLING | $/HD | | 3.00 | 6316 | 18948 | | | | |
| 2. INSURANCE | $/HD | | 1.58 | 6316 | 9967 | | | | |
| 3. SHIPPING | $/HD | | 19.48 | 6316 | 123036 | | | | |
| 4. | | | | | | | | | |
| 5. FINANCE | $/HD | | 0.44 | 6316 | 2766 | | | | |
| 6. | | | | | | | | | |
| 7. | | | | | | | | | |
| 8. QUARAN./AMLC LEVY | $/HD | | 0.33 | 6316 | 2078 | | | | |
| 9. FODDER | $/HD | | 2.58 | 6316 | 16314 | | | | |
| 10. | | | | | | | | | |
| 11. | | | | | | | | | |
| SUB TOTAL | | | 27.41 | | 173109 | | | | |
| TOTAL INPUTS | | | | | 390924 | | | | |
| OUTPUTS | | | | | | | | | |
| TO OTHER SECTORS: | | | | | | | | | |
| 1. | | | | | | | | | |
| 2. | | | | | | | | | |
| 3. | | | | | | | | | |
| 4. | | | | | | | | | |
| 5. | | | | | | | | | |
| SUB TOTAL | | | | | | | | | |
| TO EXTERNAL DESTINATIONS: | | | | | | | | | |
| 1. LIVE EXPORTS | $/HD | | 70.00 | 6316 | 442120 | | | | |
| 2. | | | | | | | | | |
| 3. | | | | | | | | | |
| 4. | | | | | | | | | |
| SUB TOTAL | | | | 6316 | 442120 | | | | |
| TOTAL OUTPUTS | | | | 6316 | 442120 | | | | |
| VALUE ADDED | | | | | 51196 | | | | |

a/ ALL VALUES IN $'000

TABLE 35 SHEEP: PRICES, WEIGHTS AND YIELDS - ALL SECTORS (CONT'D)

| TANNERY | | | WHOLESALE | | | RETAIL | | | EXPORT | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | TYPE | PRICE $/KG SKIN | CODE | TYPE | PRICE $/KG | CODE | TYPE | PRICE $/KG | CODE | TYPE | PRICE $/KG |
| 2500 | WOOL ON TANNED | 31.66 | 2600 | BONELESS MEAT | 2.49 | 2701 | RETAIL CUTS | 5.36 | 2801 | BONELESS MEAT | 2.75 |
| | SALTED | 11.74 | | CARCASES | 2.28 | | SAUSAGES & MINCE | 3.30 | | CARCASES | 2.60 |
| | DRIED | 12.96 | | OTHER RETAIL - MEAT | 2.49 | | OFFAL | 1.92 | | OFFALS | 1.67 |
| | | | | BONES & FAT | 0.07 | | | | | | |
| | | | | | | 2702 | RETAIL CUTS | 5.33 | | | |
| | | | | | | | SAUSAGES & MINCE | 3.36 | | | $/HD |
| | | | | | | | OFFAL | 2.090003 | 2802 | LIVE EXPORTS | 70.00 |

TABLE 36 SHEEP: INPUT/OUTPUT TABLE: FARM SECTOR

OUTPUTS FROM: INPUTS TO:

| CODE: | PRODUCT | UNIT | AVG DWT (KG) | UNIT VALUE | QTY | TOT VALUE | CODE: 2201 | 2201 | 2301 | 2302 | 2400 | 2500 | 2600 | 2701 | 2702 | 2801 | 2802 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2111 | 1. WETHERS+HOGGETS | $/KG | 19 | 1.06 | 127 | 2557 | | | 0.80 | 0.20 | | | | | | | | 1.00 |
| | 2. PRIME LAMBS | $/KG | 15 | 1.51 | 631 | 14300 | | | 0.18 | 0.82 | | | | | | | | 1.00 |
| | 3. SHEEP OTHER | $/KG | 18 | 0.74 | 229 | 3050 | | | 0.90 | 0.10 | | | | | | | | 1.00 |
| | 4. LIVE EXPORT | $/KG | 25 | 1.60 | 444 | 17760 | | | 0.00 | 0.00 | | | | | | | 1.00 | 1.00 |
| 2112 | 1. WETHERS+HOGGETS | $/KG | 19 | 1.07 | 852 | 17315 | | | 0.80 | 0.20 | | | | | | | | 1.00 |
| | 2. PRIME LAMBS | $/KG | 15 | 1.51 | 744 | 16843 | | | 0.18 | 0.82 | | | | | | | | 1.00 |
| | 3. SHEEP OTHER | $/KG | 18 | 0.74 | 1237 | 16475 | | | 0.90 | 0.10 | | | | | | | | 1.00 |
| | 4. LIVE EXPORT | $/KG | 25 | 1.60 | 1869 | 74760 | | | 0.00 | 0.00 | | | | | | | 1.00 | 1.00 |
| 2113 | 1. WETHERS+HOGGETS | $/KG | 20 | 0.96 | 104 | 1946 | | | 0.80 | 0.20 | | | | | | | | 1.00 |
| | 2. PRIME LAMBS | $/KG | 15 | 1.51 | 0 | 1 | | | 0.18 | 0.82 | | | | | | | | 1.00 |
| | 3. SHEEP OTHER | $/KG | 18 | 0.74 | 71 | 948 | | | 0.90 | 0.10 | | | | | | | | 1.00 |
| | 4. LIVE EXPORT | $/KG | 25 | 1.60 | 23 | 920 | | | 0.00 | 0.00 | | | | | | | 1.00 | 1.00 |
| 2114 | 1. WETHERS+HOGGETS | $/KG | 20 | 0.60 | 121 | 1453 | | | 0.70 | 0.30 | | | | | | | | 1.00 |
| | 2. PRIME LAMBS | $/KG | 16 | 1.35 | 608 | 12727 | | | 0.19 | 0.81 | | | | | | | | 1.00 |
| | 3. SHEEP OTHER | $/KG | 19 | 0.73 | 259 | 3576 | | | 0.70 | 0.30 | | | | | | | | 1.00 |
| | 4. LIVE EXPORT | $/KG | 25 | 1.25 | 185 | 5781 | | | 0.00 | 0.00 | | | | | | | 1.00 | 1.00 |
| 2115 | 1. WETHERS+HOGGETS | $/KG | 21 | 0.74 | 187 | 2902 | | | 0.70 | 0.30 | | | | | | | | 1.00 |
| | 2. PRIME LAMBS | $/KG | 18 | 1.45 | 3825 | 99482 | | | 0.25 | 0.75 | | | | | | | | 1.00 |
| | 3. SHEEP OTHER | $/KG | 20 | 0.72 | 1670 | 24048 | | | 0.75 | 0.25 | | | | | | | | 1.00 |
| | 4. LIVE EXPORT | $/KG | 25 | 1.25 | 1518 | 47438 | | | 0.00 | 0.00 | | | | | | | 1.00 | 1.00 |
| 2116 | 1. WETHERS+HOGGETS | $/KG | 21 | 0.74 | 165 | 2564 | | | 0.70 | 0.30 | | | | | | | | 1.00 |
| | 2. PRIME LAMBS | $/KG | 18 | 1.50 | 7622 | 205797 | | | 0.25 | 0.75 | | | | | | | | 1.00 |
| | 3. SHEEP OTHER | $/KG | 20 | 0.77 | 3281 | 50522 | | | 0.75 | 0.25 | | | | | | | | 1.00 |
| | 4. LIVE EXPORT | $/KG | 25 | 1.25 | 2277 | 71156 | | | 0.00 | 0.00 | | | | | | | 1.00 | 1.00 |
| 2117 | 1. WETHERS+HOGGETS | $/KG | 21 | 0.69 | 208 | 3014 | | | 0.70 | 0.30 | | | | | | | | 1.00 |
| | 2. PRIME LAMBS | $/KG | 17 | 1.39 | 92 | 2110 | | | 0.25 | 0.75 | | | | | | | | 1.00 |
| | 3. SHEEP OTHER | $/KG | 20 | 0.71 | 842 | 12013 | | | 0.75 | 0.25 | | | | | | | | 1.00 |
| | 4. LIVE EXPORT | $/KG | 0 | 0.00 | 0 | 0 | | | 0.00 | 0.00 | | | | | | | 1.00 | 1.00 |
| 2118 | 1. WETHERS+HOGGETS | $/KG | 22 | 0.68 | 273 | 3967 | | | 0.73 | 0.27 | | | | | | | | 1.00 |
| | 2. PRIME LAMBS | $/KG | 17 | 1.37 | 1378 | 31969 | | | 0.32 | 0.68 | | | | | | | | 1.00 |
| | 3. SHEEP OTHER | $/KG | 20 | 0.76 | 599 | 9142 | | | 0.73 | 0.27 | | | | | | | | 1.00 |
| | 4. LIVE EXPORT | $/KG | 0 | 0.00 | 0 | 0 | | | 0.00 | 0.00 | | | | | | | 1.00 | 1.00 |
| 2119 | 1. WETHERS+HOGGETS | $/KG | 22 | 0.68 | 104 | 1510 | | | 0.73 | 0.27 | | | | | | | | 1.00 |
| | 2. PRIME LAMBS | $/KG | 17 | 1.37 | 866 | 20103 | | | 0.32 | 0.68 | | | | | | | | 1.00 |
| | 3. SHEEP OTHER | $/KG | 20 | 0.76 | 193 | 2945 | | | 0.73 | 0.27 | | | | | | | | 1.00 |
| | 4. LIVE EXPORT | $/KG | 0 | 0.00 | 0 | 0 | | | 0.00 | 0.00 | | | | | | | 1.00 | 1.00 |
| 21110 | 1. WETHERS+HOGGETS | $/KG | 22 | 0.68 | 393 | 5843 | | | 0.73 | 0.27 | | | | | | | | 1.00 |
| | 2. PRIME LAMBS | $/KG | 17 | 1.37 | 913 | 21194 | | | 0.32 | 0.68 | | | | | | | | 1.00 |
| | 3. SHEEP OTHER | $/KG | 20 | 0.91 | 620 | 11322 | | | 0.73 | 0.27 | | | | | | | | 1.00 |
| | 4. LIVE EXPORT | $/KG | 0 | 0.00 | 0 | 0 | | | 0.00 | 0.00 | | | | | | | 1.00 | 1.00 |
| 2121 | 1. WETHERS+HOGGETS | $/KG | 22 | 0.73 | 295 | 4634 | | | 0.80 | 0.20 | | | | | | | | 1.00 |
| | 2. PRIME LAMBS | $/KG | 17 | 1.32 | 138 | 3086 | | | 0.18 | 0.82 | | | | | | | | 1.00 |
| | 3. SHEEP OTHER | $/KG | 20 | 0.78 | 280 | 4272 | | | 0.80 | 0.20 | | | | | | | | 1.00 |
| | 4. LIVE EXPORT | $/KG | 0 | 0.00 | 0 | 0 | | | 0.00 | 0.00 | | | | | | | 1.00 | 1.00 |
| 2122 | 1. WETHERS+HOGGETS | $/KG | 0 | 0.00 | 0 | 0 | | | 0.80 | 0.20 | | | | | | | | 1.00 |
| | 2. PRIME LAMBS | $/KG | 18 | 1.36 | 2 | 57 | | | 0.18 | 0.82 | | | | | | | | 1.00 |
| | 3. SHEEP OTHER | $/KG | 20 | 0.80 | 0 | 6 | | | 0.80 | 0.20 | | | | | | | | 1.00 |
| | 4. LIVE EXPORT | $/KG | 0 | 0.00 | 0 | 0 | | | 0.00 | 0.00 | | | | | | | 1.00 | 1.00 |
| 2123 | 1. WETHERS+HOGGETS | $/KG | 21 | 0.74 | 259 | 4019 | | | 0.80 | 0.20 | | | | | | | | 1.00 |

TABLE 37 SHEEP: INPUT/OUTPUT TABLE: OTHER SECTORS (CONT'D)

OUTPUTS FROM: / INPUTS TO:

| SECTOR: | CODE: | PRODUCT | UNIT | AVG DWT | UNIT VALUE | QTY | TOT VALUE | 2301 | 2302 | 2303 | 2400 | 2500 | 2600 | 2701 | 2702 | 2703 | 2801 | 2802 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FEEDLOT: | 2201 1. | 0 | 0 | 0 | 0.00 | 0 | 0 | | | | | | | | | | | | 0.00 |
| | 2. | 0 | 0 | 0 | 0.00 | 0 | 0 | | | | | | | | | | | | 0.00 |
| | 2202 1. | 0 | 0 | 0 | 0.00 | 0 | 0 | | | | | | | | | | | | 0.00 |
| | 2. | 0 | 0 | 0 | 0.00 | 0 | 0 | | | | | | | | | | | | 0.00 |
| ABBATOIR: | 2301 1. | BONELESS MEAT | $/KG | 0 | 1.99 | 90284 | 179665 | | | | 0.36 | | 0.04 | | | | 0.60 | | 1.00 |
| | 2. | CARCASES | $/KG | 0 | 1.94 | 94924 | 184153 | | | | | | 0.42 | 0.00 | | | 0.58 | | 1.00 |
| | 3. | OFFALS | $/KG | 0 | 1.35 | 8344 | 11265 | | | | 0.47 | | | | | | 0.53 | | 1.00 |
| | 4. | OTHER BYPRODUCTS | $/KG | 0 | 0.60 | 50 | 30 | | | | 1.00 | | | | | | | | 1.00 |
| | 5. | RAW SKINS-LAMB | $/SKIN | 0 | 6.35 | 4275 | 27148 | | | | | 1.00 | | | | | | | 1.00 |
| | 6. | RAW SKINS-SHEEP | $/SKIN | 0 | 5.90 | 10161 | 59953 | | | | | 1.00 | | | | | | | 1.00 |
| | 2302 1. | BONELESS MEAT | $/KG | 0 | 1.30 | 13842 | 17994 | | | | 1.00 | | | | | | | | 1.00 |
| | 2. | CARCASES | $/KG | 0 | 1.72 | 252708 | 434657 | | | | | | 0.63 | 0.20 | 0.17 | | | | 1.00 |
| | 3. | OFFALS | $/KG | 0 | 1.13 | 8324 | 9406 | | | | 0.71 | | 0.23 | | 0.06 | | | | 1.00 |
| | 4. | OTHER BYPRODUCTS | $/KG | 0 | 0.59 | 235 | 138 | | | | 1.00 | | | | | | | | 1.00 |
| | 5. | RAW SKINS-LAMB | $/SKIN | 0 | 6.12 | 12567 | 76913 | | | | | 1.00 | | | | | | | 1.00 |
| | 6. | RAW SKINS-SHEEP | $/SKIN | 0 | 5.70 | 3012 | 17170 | | | | | 1.00 | | | | | | | 1.00 |
| OTHER MEAT PROCESSING: | 2400 1. | SAUSAGES | $/KG PROD | 0 | 2.52 | 6582 | 16588 | | | | | | | | 1.00 | | | | 1.00 |
| | 2. | | 0 | 0 | 0.00 | 0 | 0 | | | | | | | | | | | | 0.00 |
| | 3. | | 0 | 0 | 0.00 | 0 | 0 | | | | | | | | | | | | 0.00 |
| WHOLESALE: | 2600 1. | BONELESS MEAT | $/KG | 0 | 2.49 | 16340 | 40647 | | | | | | | 1.00 | | | | | 1.00 |
| | 2. | CARCASES | $/KG | 0 | 2.28 | 150530 | 342456 | | | | | | | 0.68 | 0.32 | | | | 1.00 |
| | 3. | OFFALS | $/KG | 0 | 1.30 | 1943 | 2525 | | | | | | | 0.50 | | | | | 0.50 |
| | 4. | | 0 | 0 | 0.00 | 0 | 0 | | | | | | | | | | | | 0.00 |
| | 5. | | 0 | 0 | 0.00 | 0 | 0 | | | | | | | | | | | | 0.00 |

| PRODUCT FROM: | TOTAL INPUTS: | | 2301 | 2302 | 2303 | 2400 | 2500 | 2600 | 2701 | 2702 | 2703 | 2801 | 2802 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -FEEDLOT | 0 | -AVG WEIGHT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | -AVG UNIT PRICE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | -TOTAL QTY | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | -TOTAL VALUE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | -AVG WEIGHT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | -AVG UNIT PRICE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | -TOTAL QTY | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | -TOTAL VALUE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| -ABBATOIR | BONELESS MEAT | -AVG UNIT PRICE | 0 | 0 | 0 | 1.79 | 0 | 1.99 | 0 | 0 | 0 | 1.99 | 0 | |
| | | -TOTAL QTY | 0 | 0 | 0 | 46773 | 0 | 3174.5 | 0 | 0 | 0 | 54179 | 0 | |
| | | -TOTAL VALUE | 0 | 0 | 0 | 83527 | 0 | 6317.3 | 0 | 0 | 0 | 107816 | 0 | 197660 |
| | CARCASES | -AVG UNIT PRICE | 0 | 0 | 0 | 0 | 0 | 1.76 | 2 | 1.72 | 0 | 1.94 | 0 | |
| | | -TOTAL QTY | 0 | 0 | 0 | 0 | 0 | 198327 | 51276 | 42533 | 0 | 55495 | 0 | |
| | | -TOTAL VALUE | 0 | 0 | 0 | 0 | 0 | 349797 | 88195 | 73157 | 0 | 107661 | 0 | 618810 |
| | OFFALS | -AVG UNIT PRICE | 0 | 0 | 0 | 1.22 | 0 | 1 | 0 | 1.13 | 0 | 1.35 | 0 | |
| | | -TOTAL QTY | 0 | 0 | 0 | 9832 | 0 | 1943 | 0 | 486 | 0 | 4408 | 0 | |
| | | -TOTAL VALUE | 0 | 0 | 0 | 11976 | 0 | 2196 | 0 | 549 | 0 | 5951 | 0 | 20671 |
| | OTHER BYPRODUCTS | -AVG UNIT PRICE | 0 | 0 | 0 | 0.59 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | -TOTAL QTY | 0 | 0 | 0 | 285.28 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

# TABLE 38 SHEEP: COST, PRICE & TECHNICAL INDICES: FARM SECTOR

REGION

## L/STOCK ENTERPRISE

TURN-OFF % - 1. WETHERS & HOGGETS

| CODE | 2111 | 2112 | 2113 | 2114 | 2115 | 2116 | 2117 | 2118 | 2119 | 21110 | 2121 | 2122 | 2123 | 2124 | 2125 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. SHEEP | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 2. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 3. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 4. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 5. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

TURN-OFF % - 4. SHEEP OTHER

| CODE | 2111 | 2112 | 2113 | 2114 | 2115 | 2116 | 2117 | 2118 | 2119 | 21110 | 2121 | 2122 | 2123 | 2124 | 2125 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. SHEEP | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 2. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 3. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 4. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 5. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

TURN-OFF % - 2. PRIME LAMBS

| CODE | 2111 | 2112 | 2113 | 2114 | 2115 | 2116 | 2117 | 2118 | 2119 | 21110 | 2121 | 2122 | 2123 | 2124 | 2125 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. SHEEP | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 2. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 3. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 4. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 5. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

TURN-OFF % - 5. LIVE EXPORTS

| CODE | 2111 | 2112 | 2113 | 2114 | 2115 | 2116 | 2117 | 2118 | 2119 | 21110 | 2121 | 2122 | 2123 | 2124 | 2125 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. SHEEP | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 2. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 3. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 4. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 5. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

## INPUTS

VALUE

| CODE | 2111 | 2112 | 2113 | 2114 | 2115 | 2116 | 2117 | 2118 | 2119 | 21110 | 2121 | 2122 | 2123 | 2124 | 2125 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EXTERNAL: 1. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 2. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 3. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 4. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 5. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 6. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 7. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 8. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 9. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 10. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

## OUTPUTS

AVG LWT

| CODE | 2111 | 2112 | 2113 | 2114 | 2115 | 2116 | 2117 | 2118 | 2119 | 21110 | 2121 | 2122 | 2123 | 2124 | 2125 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TO OTHER SECT: 1. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 2. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 3. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 4. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 5. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

UNIT VALUE

| CODE | 2111 | 2112 | 2113 | 2114 | 2115 | 2116 | 2117 | 2118 | 2119 | 21110 | 2121 | 2122 | 2123 | 2124 | 2125 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TO OTHER SECT: 1. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 2. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 3. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 4. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 5. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

VALUE

| CODE | 2111 | 2112 | 2113 | 2114 | 2115 | 2116 | 2117 | 2118 | 2119 | 21110 | 2121 | 2122 | 2123 | 2124 | 2125 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EXTERNAL: 1. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 2. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 3. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 4. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

TABLE 40 SHEEP: SUMMARY OF LIVESTOCK DATA BY REGION

| ABARE | CATTLE NUMBERS | | | | | | | SHEEP NUMBERS | | | | DISPOSALS a/ | | | | | | BY-PRODUCTS | | | MATINGS | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| REG N | BEEF | | | | | DAIRY | | | | | TOTAL | CATTLE | | | | SHEEP | | | WOOL | | TO | TO | TOTAL | LAMBS MRK |
| No. | TOTAL | COWS/HFR | HFR CLV | OTHR CL | OTHER | TOTAL | COWS | TOTAL | EWES | WETHERS | LAMBS a/ | TOTAL | BULLS STEERS | COWS HEIFERS | CLVS<1 | SHEEP | LAMBS | MILK M | NUMBER SHORN | TOTAL KG SHORN/CRU | MERINO | CORR/POL | MATINGS | MATING |
| 1 | 496589 | 245574 | 55811 | 77395 | 99342 | 111300 | 63599 | 5151374 | 2402933 | 1726295 | 971133 | 296222 | 110571 | 77229 | 108423 | 1224161 | 566279 | 243 | 5408083 | 24931056 | 1288408 | 96910 | 1975992 | 741588 |
| 2 | 179704 | 99100 | 24997 | 25854 | 20156 | 1548 | 253 | 27768123 | 11611798 | 6463441 | 7104851 | 89804 | 39220 | 29452 | 21133 | 6092928 | 1372039 | 1 | 29722958 | 134183064 | 10961025 | 119679 | 11951452 | 4347513 |
| 3 | 240559 | 132200 | 28111 | 27304 | 48315 | 28 | 17 | 2601117 | 746633 | 727292 | 553214 | 55392 | 32335 | 17867 | 5191 | 308278 | 22142 | 0 | 3042653 | 11326637 | 1069140 | 125 | 1069340 | 623832 |
| 4 | 2164294 | 1143225 | 273203 | 303910 | 388734 | 1089859 | 728201 | 25327625 | 11915359 | 7415763 | 5625626 | 1481529 | 366319 | 408534 | 687362 | 5414169 | 3992905 | 2764 | 25933718 | 124502015 | 5381673 | 1139157 | 10272214 | 4250575 |
| 5 | 1846858 | 692079 | 268082 | 320182 | 306785 | 555137 | 360258 | 45578828 | 23407397 | 11402962 | 10565727 | 1158455 | 429397 | 299949 | 398509 | 9340391 | 7713785 | 1364 | 44486416 | 229525638 | 11930442 | 857738 | 20313777 | 8454578 |
| 6 | 344519 | 116479 | 39164 | 49112 | 59899 | 2089 | 1172 | 10142351 | 6010591 | 1712783 | 2602680 | 92768 | 48915 | 29154 | 14700 | 1822666 | 565430 | 4 | 9544929 | 54669723 | 4683640 | 10008 | 4776822 | 1742159 |
| 7.C | 893763 | 302870 | 121557 | 134838 | 131656 | 267951 | 172351 | 2945488 | 1377194 | 951507 | 593826 | 456023 | 112670 | 124831 | 218522 | 504340 | 439356 | 640 | 2779842 | 12870522 | 653764 | 14529 | 2350530 | 474838 |
| 7.T | 1288939 | 410865 | 191375 | 205352 | 206313 | 75345 | 44778 | 9359080 | 4274424 | 2962223 | 2128412 | 524760 | 213174 | 151318 | 154263 | 1489100 | 1739194 | 166 | 8338744 | 38333564 | 2223964 | 50343 | 3591118 | 1678287 |
| 8.N | 2633594 | 1175791 | 305018 | 324265 | 742298 | 77370 | 48096 | 5050377 | 1957119 | 2017758 | 854883 | 965621 | 541117 | 294889 | 129615 | 934598 | 240542 | 162 | 4476767 | 22159046 | 1442856 | 0 | 1566080 | 594169 |
| 8.S | 1050768 | 444732 | 140428 | 164392 | 208497 | 7571 | 2672 | 8630408 | 4424011 | 1892158 | 2216266 | 560271 | 329007 | 145027 | 86237 | 1711333 | 1119391 | 10 | 7583776 | 39743151 | 2879356 | 13886 | 3781402 | 1578289 |
| 9 | 2759670 | 1582606 | 283370 | 293279 | 827311 | 233119 | 153318 | 14597 | 6375 | 6036 | 1623 | 952300 | 459639 | 338710 | 153951 | 797 | 1640 | 517 | 10770 | 45658 | 2854 | 0 | 4970 | 1403 |
| 10 | 1628028 | 888208 | 161206 | 172574 | 360915 | 4990 | 2723 | 5119239 | 2552855 | 1430761 | 890110 | 489915 | 272218 | 170948 | 46750 | 1036054 | 104994 | 9 | 5035131 | 22731613 | 2005548 | 0 | 2015092 | 480605 |
| 11 | 2758715 | 1469962 | 263643 | 260564 | 673570 | 316 | 62 | 4439283 | 2206611 | 1471033 | 887184 | 531394 | 352225 | 155649 | 23521 | 762555 | 104401 | 0 | 4279910 | 20382107 | 1662328 | 0 | 1672827 | 528441 |
| 12 | 871294 | 527369 | 67478 | 76209 | 177767 | 2639 | 1901 | 280 | 100 | 100 | 75 | 170115 | 108235 | 56095 | 5785 | 0 | 0 | 4 | 250 | 1018 | 0 | 0 | 0 | 25 |
| 13 | 416649 | 188044 | 61943 | 72614 | 82648 | 134635 | 90302 | 4839715 | 2312292 | 1254084 | 1224068 | 228016 | 81358 | 67243 | 79416 | 933322 | 656525 | 324 | 4764097 | 19027804 | 905337 | 511899 | 2022479 | 88 |
| TOTAL | 19573939 | 9418101 | 2285383 | 2507840 | 4334204 | 2563891 | 1669698 | 156967882 | 75205688 | 41434191 | 36219674 | 8052582 | 3496395 | 2366892 | 2133374 | 31574690 | 18638621 | 6209 | 155408041 | 754432614 | 47090333 | 2814272 | 67364092 | 25496391 |