1-1-1981

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Lambs on the move

R. J. Suiter*

In 1906 the fledgling Western Australian 'lamb' industry made its export debut with a shipment of 422 frozen lamb carcasses aboard the R.M.S. Britannia to England. At about that time a 25-sheep flock was considered to be above average.

From 1907 to 1914, lamb carcass exports expanded, but then fell away until regular shipments were renewed in 1930. This resurgence of the export trade was assisted by the establishment of the Western Australian Meat Exports Company at Fremantle (Robb Jetty abattoir) in 1922.

From those small beginnings in 1906 the export lamb industry in Western Australia evolved into one based on specialised lamb production using first cross mothers, usually Border Leicester x Merino, and short-wool British Breed sires, particularly the Southdown. The lamb industry, until the early 1970s, remained a small component of the total sheep industry, which was Merino-based and geared for wool production, with mutton as a by-product.

Marketing lamb

Exports of lamb carcasses peaked in 1939 at 364,000 then went into decline, dropping to 47,000 (710 tonnes) exported in 1968. During the 1950s and 1960s the export market was used as a buffer against the seasonal price depression during the spring glut. When supply exceeded local demand, prices would fall to export parity and lamb would be bought for export, usually to the United Kingdom. That seasonality of supply continues today. Lamb slaughtering peaks in October at about 400,000 for the month, and troughs from December to July at about 50,000 lambs a month. The effects of supply seasonality can be seen in figure 1.

Sheep meat production is becoming a more important component of the sheep industry. Prime lamb, mutton and live sheep exports contributed $156 million (31 per cent) of the $504 million gross value of sheep production in 1980.

With the development of new sheep meat markets in Middle Eastern countries... and in particular Iran... in the mid 1970s, both lamb and adult sheep meat exports increased substantially. Total Western

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Loading chilled Western Australian lamb for airfreight to the Middle East. (Photo: Richie Hann).
Australian lamb exports almost doubled from 1972 to 1976 and have tended since then to stabilise at about 12,000 to 15,000 tonnes per annum.

The total production of lamb in Western Australia has increased in recent times from about 12,000 tonnes in 1964 to 22,000 tonnes in 1980. During that time lamb exports have increased from about 2,000 to about 12,800 tonnes. Thus local market consumption has remained static whilst the proportion of lamb exported has increased from 12 per cent in 1964 to about 55 per cent over the period 1978 to 1980.

Lamb acquisition

The Western Australian Lamb Marketing Board (WALMB) started operations in 1972 and was associated with the development of the New Middle East markets. With statutory acquisition of lamb slaughtered in Western Australia, and payment for that lamb on the basis of a published pricing schedule for carcass weight and grade, the Board has introduced a degree of stability, in terms to the producer, which was lacking in the industry previously.

Producers are not bound to sell to the WALMB. They may sell through the live auction system. However lamb is acquired by the Board upon delivery to an abattoir for slaughter. Thus the price at live auction is directly influenced by the pricing policy of the WALMB. The relationship between the Board’s scheduled price for Red 2 grade lambs (13 to 16 kg carcass weight) and the Midland auction price for that class of live lamb, estimated to yield a Red 2 carcass, is shown in figure 1.

During the ‘out-of-season’ period the demand for fresh lamb for the local market sometimes produces higher prices in the Midland auction sale than are offered by the WALMB as the figure shows. However WALMB prices are based on actual carcass weights and grades achieved, whilst comparable Midland carcass values are based on a visual estimate of carcass weights and grades from live lambs.

Changing market preferences

Changing markets, and preferences for leaner carcasses, has led to a swing towards a leaner ‘prime lamb’, and away from the traditional ‘fat lamb’.

Breeds of sheep used in the lamb industry are changing under the pressure of demand for leaner, more meaty carcasses for both local and export markets. Bigger framer, later-maturing British Breed sires such as the Dorset, Suffolk and Border Leicester are popular. More importantly there appears to be a trend away from the use of first cross ewes, such as Border Leicester x Merino towards Merino ewes as prime lamb mothers.

An increasing proportion of lambs killed for prime grades are pure Merino. It is estimated that about 20 per cent of lambs killed during the 1979/80 season were pure Merino.

In the future the Merino’s contribution to the lamb and young sheep meat industries will increase. This trend can be enhanced by the development of a meat-producing Merino. The infusion of high fertility genes through the Borooola Merino, or through selection within the existing flock, is being examined in Departmental research programmes. Further, substantially improved growth rates, whilst maintaining the lean characteristics of today’s Merino sheep, could be achieved through selection. This would help boost prime lamb production.

Areas of lamb production

There are no accurate statistics indicating the main slaughter lamb production areas in Western Australia. However, in broad outline the WALMB figures showing the origin of lambs received for slaughter give us an indication of these areas. About 75 per cent of lambs slaughtered were delivered from an area enclosed within the 450 and 750 mm rainfall isolines. This takes in an area about 100 km wide from Moora through Northam, Brookton, Narrogin and Kojonup to Albany. This pattern of production is confirmed by a similar distribution pattern of British Breed rams.

Continuity of supply

Assurance of quality and of continuity of supply will be essential factors in determining both the level of demand and the price offered for our sheep meats. The replacement of the current subjective export carcass-grading system with an objective sheep carcass classification system would assist in assuring consistent quality. Such a system is operating for beef in Western Australia and may be operating for sheep in the near future.

Continuity of supply will depend upon both the total availability of stock for slaughter and the seasonality of supply of that stock. Changing the Western Australian sheep flock structure from our traditional 42 per cent of breeding ewes to the current 46 per cent, and to 55 per cent or more in the future, will substantially increase the number of lambs available for replacements, for slaughter or for live export.

The number of older, heavy, wethers available for live export is
decreasing, a result of the big trade in those sheep over the past few years. Also, there have been changes in contract specifications for live sheep towards younger and leaner types. Thus there is likely to be an increase in competition between the carcase and live sheep trades for hogget and lamb. A decision farmers must face in the near future will be whether to sell lambs at liveweights (30 to 34 kg) suited to produce export carcases or to hold and finish them to shipper weights of 40 to 45 kg.

Such decisions will not reduce the number of lambs available for slaughter, as projected increases in the proportion of breeding ewes in the State’s sheep flock will mean two million or more extra lambs each year.

Year-round continuity of supply of young sheep and lambs for both carcase and live export will not be met by any one simple change in the current seasonal production system. Market development to encourage the use of frozen meats, and further incentive through premiums for out-of-season production of finished lambs are the main avenues open to the industry.

Air freighting and chilling developments

Among the most recent developments in sheep meat marketing from Western Australia is the air freighting of chilled carcases. Another technological development, vacuum packaging, allows carcases to be kept reliably without freezing for up to ten weeks. Both air freighting of chilled meat and vacuum packaging provide more desirable products to the consumer. Soft (never frozen) meat as opposed to frozen meat. Consequently they can demand higher prices from the consumer.

Our future sheep meat marketing may shift in the direction of chilled or vacuum packaged meats. However, continuity of supply throughout the year will be necessary, and to encourage such production, premium prices for out-of-season finished stock will be a prerequisite.

Out-of-season production

Out-of-season finishing of lambs to market standards is not just a future possibility, it is an area of current development. Supplementation of sheep grazing dry summer pasture or cereal stubbles, and intensive feedlotting, are areas of work in which the Department of Agriculture has a big research input. Recent work indicates that even with the best feeds, (40:60 lupin:oats grain mixtures with mineral and vitamin additive), sheep in intensive feedlots only grow as well as those being supplemented from a self-feeder in the paddock. With poorer quality rations, the sheep fed in the paddock from self-feeders were better off than those fed in feedlots.

On an industry basis it is unlikely that intensive feedlotting of lambs will contribute a significant proportion of out-of-season production. In normal years, the main benefits of such systems, i.e. conservation of scarce land or scarce summer feed, is unnecessary. With the projected increases in cropping intensity and increasing cropping in higher rainfall areas, there will be more stubble than could be used as roughage feed in our sheep industry.

On an individual producer basis, intensive feedlotting of lambs will have scale-of-operation advantages when large numbers of lambs are being finished for out-of-season markets. The logistics of feed handling and storage, supervision and husbandry of the lambs; efficiency of labour use and selection of lambs suitable for market all will be more effectively managed under intensive feedlot conditions than with lambs spread over a large area at normal stocking rates on stubble or pasture with self-feeders.

Feedlotting, or at least holding sheep in confined areas, may have greater benefits in the future in maintaining breeders in late summer, and at the break of the season when normally scarce feed becomes even scarcer due to increased intensity of cropping and use of chemical weedicides in the cropping programme. Both remove the early green feed suppliers such as volunteer pasture species (grasses in particular) and favour the development of clover-dominant pastures. This change towards clover-dominant pastures will have benefits both in quality and quantity of spring and summer pasture feeds.

Conclusion

The future of the lamb industry seems assured. There is likely to be continued demand from consumers who prefer young, lean sheep meats. Per capita meat consumption in countries of the Middle East is still relatively low, and those countries have an increasing capacity to offer reasonable returns to Australian sheep meat producers.