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Mutton . . . product with a future.

T. Marshall*

Introduction
Western Australia has had a mutton industry since sheep were first introduced. Originally it did no more than provide meat for the settlers. Now it has developed to become an important export industry earning more than $30 million a year.

Early records show that Western Australia first exported mutton in 1916 . . . a shipment of approximately 20 tonnes. However it is likely that ships calling at Western Australian ports before that time replenished their stores with local mutton.

Since then, the volume of exports has grown steadily, so that today, more than 30 countries regularly buy Western Australian mutton.

By definition, mutton is the meat derived from sheep with four or more permanent incisors (front teeth). In this way it is distinct from lamb or hogget. However, future market requirements and production trends are likely to encourage the development of a significant export trade in the carcasses of young sheep. This trade will comprise a big proportion of wether hogget meat, therefore this article will review the production of all sheep meat other than lamb.

Traditionally, mutton has been derived mainly from cast-for-age animals, usually five to seven years old, culled from wool-producing flocks. Thus mutton has developed a reputation for being a tough, low quality meat unsuitable for other than manufacturing purposes. But opportunities exist to develop

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markets for quality table sheep meats, including young mutton. As sheep meat markets expand, mutton export will expand also.

Production systems

Until recent years Western Australia's sheep industry has been devoted primarily to wool production. It produced wool from its mainly-Merino flocks, prime lamb from crossbred and Merino ewes and mutton from aged cull ewes and wethers. Thus mutton production was mainly a by-product of the wool industry.

However, world demand for sheep meats grew rapidly during the 1970s and sheep meat production gained significance within the industry—a significance which many believe will continue to grow in the future.

Traditional production systems

Under traditional methods of sheep raising in Western Australia about 40 to 43 per cent of the average flock comprised mated ewes. Their numbers provided enough lambs to satisfy the domestic demand for lamb meat with a surplus for export, replacements for the wool-producing flock and for flock increase.

In the traditional production systems, ewes were kept for four or five lamblings before being sold for meat. Their poor quality mutton was suitable mainly for manufacturing, thus it could command only a low price. However, in relation to the size of the State's flock, the total turn-off was low because of its sex and age structures. This was probably a fortunate consequence in view of the market situation and prices paid for the product in past years.

Since its inception the State's sheep industry has gone through a period of almost continual growth. This growth was slow at first but accelerated rapidly through the 1950s until the mid-1970s. Since that time sheep numbers have declined due to adverse seasonal conditions, coupled with high demand for sheep for slaughter and live export.

Projections suggest that the 1980s could see a small increase in the flock again, back towards the numbers of the mid-1970s.

Present production systems

The Department of Agriculture recognised the potential for increased sheep meat and live animal exports in the early 1970s and launched an extensive campaign aimed at encouraging farmers to increase the proportion of breeding ewes in their flocks and hence lift turn-off.

Progress was slow at first, as markets developed. However the past few years have seen marked changes in the Western Australian sheep industry. These changes have occurred in response to the predicted increase in demand from overseas countries for carcass meat and sheep for live export. The development of the live export trade has been described by McDonald elsewhere in this Journal.

The major changes are an increase in the proportion of breeding ewes in the State flock and a reduction in the size and age of the wether flock. These changes have allowed a greater turn-off of wethers without depletion of total flock numbers.

However, much of this increase in turn-off has been absorbed by the live sheep trade. In fact, although total wether turn-off has increased in recent years, wether slaughtering have declined. At the same time, ewe slaughtering have tended to increase . . . a trend likely to continue as the ewe flock grows.

No statistics are available to detail the precise numbers of ewes and wethers which make up total sheep slaughtering. However, sheep researchers estimate that before the development of the live sheep trade, wethers made up 30 to 40 per cent of total sheep slaughtering while today they constitute only about 12 to 15 per cent.

While total sheep meat production has increased, there have been no obvious large-scale changes in the breed structure of the State flock. Merinos still constitute more than 90 per cent of the total although the number of Merino ewes mated to non-Merino rams has increased slightly. This is simply a reflection of the suitability of the Merino to our existing markets.

Future production systems

The importance of meat production from the sheep industry in this State will continue to grow. Initially the emphasis will be on lamb and young, good-quality sheep for live export. However, it is likely that the relative importance of live exports will diminish in the future and increasing amounts of carcass meat will be exported. There also will be an increase in the quantity of cast-for-age ewe mutton provided as flock sex structures continue to change.

There are two reasons for this forecast:

- Meat handling and distribution procedures in what are now predominantly live sheep markets, are improving continually. This, coupled with growing wealth, sophistication and modernisation of such customer countries should lead to an increase in demand for carcass meat.

- There is a world-wide demand for protein. Sheep meat is an excellent medium for meeting this demand. The establishment of new overseas markets in both developing and developed countries in line with this demand should increase the enquiry for sheep meat.

These changes will not happen overnight. The developments will be slow. Live sheep exports will continue to be important in the immediate future. Also these changes will not happen at all unless a product of the required quality is made available. Many countries require a table quality meat—but will seek manufacturing quality mutton also.

In this context packaging, transport and continuity of supply are of prime importance. Traditionally mutton has been exported in the frozen form. Generally, consumers do not like frozen meat. In recent years a number of bodies including the Department of Agriculture have developed improved technology for
exporting chilled meat. This has opened up prospects for increased overseas markets.

Mutton is exported as whole carcases, sides and bone-in and bone-out cuts. Half the State's total exports for 1979/80 was carcases or sides, 10 per cent bone-in cuts and 40 per cent bone-out cuts.

Because of the Western Australian climate production tends to be seasonal. Many markets, however, require meat on a year-around basis. Department of Agriculture work, aimed at producing out-of-season lambs and wethers for live export, will have equal application to the mutton industry.

Manufacturing quality meat, produced mainly from cast-for-age ewes, will continue to find a market in traditional outlets but will face competition from other species and artificial meats. Research now under way is aimed at developing post-slaughter techniques which will improve the quality of such mutton. If this succeeds, the value of cast-for-age ewes should improve greatly as their meat becomes suitable for higher-priced markets.

The swing towards increased sheep meat production has started already in Western Australia. If this State is to continue as a meat producer then the trend will need to continue. The proportion of mated ewes in the flock has increased steadily in the last five years, from 39 per cent in 1976 to 46 per cent in 1980.

It is likely that the proportion of breeding ewes in the State flock will continue to increase... a prerequisite to increasing the turn-off from the flock to meet the expected demand for sheep meat. Also it will mean that the average age of the wether flock will continue to decrease. It is likely then, that in the future the only true mutton will be that produced from cast-for-age breeding ewes, and that a big proportion of wethers will be turned off as young sheep or hoggets.

Estimates suggest that the proportion of wethers four years of age and more in the flock has fallen from 25 to 50 per cent in the mid-1970s to less than 10 per cent today.

Prices in the vicinity of $80 to $100 per head or even higher are common in some European and Middle East countries. Any future moves towards world parity for the price of Western Australian sheep could see sheep production become more profitable than cropping.

Marketing

There is not nor has there been any organised marketing system for mutton in Western Australia.

Most mutton-producing sheep are sold at auction after which they may go straight to slaughter or holding paddocks before slaughter. A smaller proportion is sold in the paddocks or consigned direct to slaughter on a weight and grade purchase basis.

Under these marketing systems mutton producers cannot expect to receive steady prices for their product. Rather, prices are subject to violent fluctuations depending on supply and demand situations at the time of sale.

The industry has consistently resisted the development of more orderly marketing schemes for mutton for many and varied reasons.

Perhaps the major technical barrier to the introduction of improved marketing schemes for mutton is the lack of a system to accurately describe the carcase in terms of its quality. Equally important is the need to accurately describe the product being sold to consumers in such a way that they can readily comprehend and gauge its quality from its description.

Hopefully, present trial and development work by the Department of Agriculture in this area will lead to workable systems being formulated.

Factors such as age, sex and degree of fat cover give a good guide to the eating quality of meat. Information about these allows buyers to seek out the type of meat they want. There should be benefits for producers in knowing, through classification how to adjust their operations to match market requirements.