



## Specialty carpet wool sheep

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### Introduction

Pure wool and wool blend carpets are made from blends of different types of wools. These wools are broadly grouped as specialty carpet wools, basic wools and filler wools. All these groups of wool are important in determining the desirable characteristics of the finished carpet.

The basic and filler wools are typically stronger type wools. Romney and other British breeds, hairy crossbreed sheep, hairy britches etc. are often bought to spin into carpet yarn.

Specialty carpet wools contain a high proportion of hollow, or medullated, wool fibres. These are strong and resilient and impart these qualities to the finished carpet. They often contribute about 20-30% of the final blend.

Australia imports up to 90% of its carpet wools of all categories. Some of this wool contains coloured or pigmented fibres which limit the colour ranges of the final product. New Zealand is a major supplier of carpet wools used by Australian carpet manufacturers.

Many breeds can be used to supply the basic and filler wools, but there are only 4 breeds in Australia which can produce the speciality carpet wool.

The four specialty breeds are Drysdale, Tukidale, Carpetmaster and Elliottdale. They have all been derived originally from Romney or Perendale sheep. All the breeds grow very similar quality of wool and, except for the Elliottdale which has polled ewes (and some rams), the sheep have horns.

### Running a commercial flock

Being based on Romney stock, speciality carpet wool sheep are a true dual purpose meat/wool sheep. Both the meat and the wool contribute to the profitability, with the proportions varying with the vagaries of each market at the time.

Speciality carpet wool has different processing characteristics to most traditional wools and must be free from vegetable and dust faults. High rainfall areas are best suited for growing such high yielding wool. The staple length is also important and traditionally sheep are shorn twice each year to ensure wool isn't too long for processing.

Some sheep are even shorn more than this, however, the high cost of shearing obviously effects nett returns to the grower and this aspect needs to be carefully considered.

Wool grows about 25 mm each month. Adult sheep can be expected to cut in the order of 6-7 kg per year and a yield of 78-80% is typical.

Most flocks are run as self-replacing flocks. Some ewe lambs are kept on for breeding and usually all wether lambs are sold to the meat trade as prime lamb.

The viability of keeping wethers depends on the price of wool and the final value of the sheep. Running wethers may be a viable sideline for dairy or beef farmers who could run a flock virtually without reducing the stocking rates of the cattle, because of the complementary effect resulting from different grazing patterns, parasite burdens and management considerations. For example, in a dairy farm with a rotational grazing system a mob of carpet wool sheep could be rotated after the cows to mop up what feed is left.

### Management considerations

All four breeds are similar to the Romney in that they are very seasonal breeders. They do not join readily before February most years, so are locked into a late winter or spring lambing.

Lambs grow a lot of wool but do not perhaps grow meat as fast as some breeds of prime lamb. Hence they are not suited to the woolly sucker lamb that traditionally forms the bulk of the prime lamb market.

Carpet wool lambs need to be shorn at least once and weaned before they are large and finished enough to sell. They will not be ready as spring lamb, but more often are sold in the summer, autumn period, and perhaps even into the following winter.

Carpet wool lambs produce high quality, lean carcasses. Tanning trials have demonstrated the high quality of leather and wool-on products which can be produced from specialty carpet wool skin. Shearing times for lambs should be considered relative to selling time so that they have about 4 weeks wool growth before they are sold to optimise skin prices.

## Wool classing and marketing

Carpet wool is classed on quality and length. As in any wool classing all stain must be removed and sold separately. The brands and descriptions for each major wool type are shown in Table 1.

**Table 1. Major brands and descriptions of carpet wools**

| Brand  | Description   |
|--------|---|
| AAA CW | Top grade carpet wool fleeces with high medullation, very little crimp.             |
| AA CWB | Second grade fleeces. Finer and softer than CW. Has some crimp.                     |
| CWL    | Carpet wool lambs fleeces.  |
| AAA CX | Top quality fleece, coarse but not medullated (eg. Romney, coarse crossbreed etc.). |

Wool should also be classed into length, described in inches. The length categories are 2-4", 3-5", 4-6" and OL, which is overlength, or greater than 6 inches. As with any wool classing off types and oddments such as bellies, pieces etc. should also be kept separate.

Although carpet wool can be traded through the traditional auction system it is usually sold privately, either through an agent or direct to a processor.

## How to get into carpet wool production

There are now enough speciality carpet wool sheep available to readily purchase a mob of good quality stock. They can also be bred up from a base Romney flock.

Breeding up from Romney sheep is rapid because the production of medullated wool is controlled by a dominant gene. The first cross of carpet wool rams over Romney ewes produces either CW or CWB type wools. Second crosses also produce CW or CWB type wools, however, at this stage some sheep will contain 2 genes for carpet wool

(homozygous) and some sheep will only contain one (heterozygous). Further cross breeding with carpet wool rams will increase the proportion of lambs with 2 genes for carpet wool and the proportion of CW type wool.

There is some evidence that heterozygous Tukidales produce more CW and less CWB than do heterozygous Drysdales. However, heterozygote Tukidales are indistinguishable from homozygote Tukidales, making the selection of a true bred, fully homozygous, flock more difficult. For the long-term trueness of the breed it is preferable to aim for homozygous flocks.

Further information about specific carpet wool breeds and information relating to sheep sales can be gained by contacting the secretaries of the breed societies.

## Outlook

Predictions for the manufacture and sale of wool carpets are very promising. Australia produces nowhere near enough carpet wool to match domestic demand, let alone having a surplus to export.

New Zealand is the major supplier of carpet wool of a similar quality to Australia, and so the price is determined largely by that country.

The Australian industry only began in the mid 1970s and has grown rapidly. Comparisons to apparel wool prices, particularly during the boom of the late 80s showed carpet wool to be apparently a very poor cousin. Such comparisons are unfair, a more valid comparison should be made with prime lamb production which competes geographically with carpet wool production.

The advantages of a carpet wool flock are those of a self replacing prime lamb flock. Some people, particularly in the high rainfall areas, don't like to buy in replacement sheep because of disease consideration, and variations in quality of purchased sheep. There are not a large number of breeds available to use as self replacing prime lamb flocks. Carpet wool sheep can help to fill that niche and should have a sound commercial future in that context.

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