

# tips & tools

MSAS7

MEAT STANDARDS AUSTRALIA

## The effect of cut and cooking method on sheepmeat eating quality

### How cooking method affects eating quality

The cut and cooking method combination is a vital factor in optimising sheepmeat eating quality. The various muscles of a carcass will have different recommended cooking methods.

Muscle is made up of muscle fibre groups surrounded and supported by connective tissue, which contains collagen fibres. Collagen fibres form cross-links to stabilise and strengthen muscles. Different muscles have varying amounts of connective tissue related to the muscle position and function within the body.

For example, muscles that are used constantly will have a high connective tissue content. The collagen and connective tissue can be partially broken down through casserole (wet) cooking methods using low heat and moisture over a period of time. This cooking method will optimise the eating quality of these cuts.

Muscles that do little to no work will contain almost no connective tissue and are therefore inclined to be more tender. An example is the loin, which is situated along the spine. Loin cuts would not be suitable for the casserole

### Key points

- The eating quality of grilled cuts is (in descending order): loin > round and rump > silverside > topside.
- Recommended cooking methods can optimise eating quality.
- There is some potential for mutton loin products to be marketed as a good quality grilling meat although its eating quality will be more variable than that of lamb and hogget loin.
- To avoid pronounced mutton flavours, heavily trim the fat (denude) from the meat of older animals.

cooking method, as the structure would be completely broken down. These cuts would be best suited to pan frying, grilling or roasting.

Table 1: 'Overall liking' score for grilled and roasted cuts from lamb and mutton.

Cut	Lamb		Mutton	
	Grill	Roast	Grill	Roast
Loin	66	68	60	54
Knuckle	70	65	54	59
Rump	65	68	56	56
Silverside	60	60	50	unsatisfactory
Topside	52	59	50	unsatisfactory

The MSA score, out of 100, is calculated by adding a percentage of the individual consumer scores for each sensory component (tenderness, Juiciness, Flavour and Overall liking). Consumer survey results have shown that an eating quality score below 50 is considered an unsatisfactory eating experience. All lamb and sheepmeat sold as MSA has a score of 50 and above.



## Eating quality of different cuts from lamb, hogget and mutton

Table 1 shows the 'overall liking' score for grilled cuts of lamb and mutton after optimal processing and ageing. The higher the eating quality score, the lower the risk of a poor eating experience.

In table 1 it can be seen that for lamb, all grill cuts – except topside – scored highly. When grilled, lamb cuts clearly outscored the mutton cuts, as would be expected. It can be concluded that when grilled, and with the exception of the topside, lamb performs well across all cuts.

Also in table 1, all lamb cuts score highly when roasted. In comparison, mutton silverside and topside cuts, when roasted, fail to satisfy consumer expectations. However, cuts such as mutton knuckle and rump, although not scoring as highly as lamb, can deliver a satisfactory eating experience when roasted. There is also opportunity to successfully market mutton loins as grilling cuts.

## Recommended cooking methods

Collective research has provided cooking recommendations for MSA sheepmeat cuts by category. These recommendations provide a basis for product labelling. The chances of disappointment can be significantly reduced when appropriate cooking methods are applied.

*Table 2 demonstrates the application of recommended cooking methods to various cuts.*

Category	Cut				
	Loin	Rump	Silverside	Topside	Hindshank
Lamb	Grill Roast Stirfry	Grill Roast Stirfry Casserole	Grill Roast	Stirfry	Casserole
Hogget	Grill Roast Stirfry	Grill Roast Stirfry Casserole	Grill Roast	Stirfry	Casserole
Mutton*	Grill Roast Stirfry	Grill Roast	Grill Roast	N/A	N/A

\* Mutton should be denuded of fat

The following cooking methods are recommended as part of MSA sheepmeat. Where MSA is used to underpin a brand, that brand can have its own cooking label but the corresponding cooking method for the cut must be displayed.



CASSEROLE

### Casserole or 'slow cook'

Cuts displaying this cooking method should be cooked in sauce or gravy on low heat for two hours. The product is prepared in 20mm cubes.



GRILL/PAN FRY

### Grill (BBQ/pan fry)

Cuts displaying either of these symbols are suitable for cooking in a pan, grill or BBQ. They are best cut at minimum 15mm thickness.



ROAST

### Roast

Cuts displaying this symbol are suitable for roasting in a moderate oven (180°C). accurate cooking is best determined using a meat thermometer. Internal temperatures should be as follows for the different degrees of doneness:

Rare 60°C

Medium 65–70°C

Well done 75°C

When the roast is removed from the oven, allow it to rest for 10 minutes prior to carving.



STIR FRY

### Stir-fry

Cuts suitable for this cooking method should be cut into strips approximately 6mm wide and 75mm in length. The product is cooked in small batches on high heat.

## For more information

Visit [www.mla.com.au/msa](http://www.mla.com.au/msa) or contact MSA 1800 111 672.



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