

## FAT CONTENT IN UNTRIMMED RETAIL BEEF AND LAMB CUTS

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A decrease in the fat content of beef and lamb in the early to mid 1980s in Sydney compared with previous studies was reported by Greenfield (1987). As part of a wider study of sources of fat in the Australian diet, the fat content of retail beef and lamb cuts determined in February to March 1990 is reported.

Beef and lamb cuts were selected for analysis based on information on consumption, Bartley et al. (1988) with more cuts of beef examined as consumption of beef is higher than lamb, and also there is a greater variety of beef cuts compared with lamb. Three samples of each cut were analysed from three sources; a large supermarket and two retail butcher's shops in a Geelong suburb of high socioeconomic status. In the supermarket, where a range of meats were on offer, a deliberate effort was made to select the fattest, leanest and an average sample. In the case of the butcher's shops this was not possible, although for some cuts, purchases were staggered over different days in order to increase the potential variability. Analysis of untrimmed meat samples followed the procedures of Mann et al. 1990.

Overall fat content (g/100g) of beef was less than lamb; mean ( $\pm$  SEM) boneless beef  $10.9 \pm 1.5$  (n=54), lamb  $21.6 \pm 1.5$  (n=27). Within some individual cuts there were differences between stores, which are shown together with a comparison with Greenfield (1987).

Meat cut	Supermarket	Butcher 1	Butcher 2	Mean	Greenfield
<b>Beef</b>					
Topside	3.9 (0.7)	9.1 (0.7)	2.2 (0.2)	5.1 (1.1)	6.6
Blade	8.3 (0.6)	12.1 (1.1)	7.1 (0.9)	9.1 (0.9)	9.3
Round	5.0 (0.8)	4.6 (0.6)	8.6 (2.1)	6.0 (0.9)	9.1
Sirloin	20.1 (2.7)	18.1 (0.9)	12.9 (1.7)	17.0 (1.4)	16.0
T-bone	18.6 (2.1)	13.7 (2.1)	13.4 (2.7)	15.2 (1.4)	-
Mince	10.6 (0.1)	6.2 (0.2)	11.0 (1.5)	9.3 (0.9)	10.8
Sausages#	26.2 (0.3)	21.9 (0.4)	23.7 (1.4)	23.7 (0.6)	-
<b>Lamb</b>					
Midloin	27.8 (2.9)	26.4 (2.1)	34.4 (2.0)	29.5 (1.7)	32.2
Leg	16.2 (1.2)	13.2 (0.5)	11.4 (0.8)	13.6 (0.8)	13.6

# For each store n=3, with the exception of sausages where n=6 or 9.

The variability within some cuts between stores was greater than the overall variability between stores. Thus, while the fat content in the topside and blade samples from Butcher 1 were higher than the other stores ( $P < 0.05$ ), samples from mince and sausages were leaner. Comparison of the overall results with Greenfield (1987) suggest little recent change in fat content of beef and lamb. In the "premium mince" of the supermarket and Butcher 2, 5 of 6 samples had a fat content greater than 10%. The NHMRC Food Standard Code requires "if chopped or minced meat claims to be lean or low fat it shall not contain more than 10g fat /100g". It seems the meat industry interprets this as a physical separation, ignoring the small but significant contribution of fat in the lean.

BARTLEY, S., BALL, K. and WEEKS, P. (1988). Discussion Paper 88.2 Australian Bureau of Agricultural and Resource Economics. (AGPS).

GREENFIELD, H. (1987). *Food Technol. Aust.* 39: 197.

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