

**Results from a study to develop an external fat descriptor for beef and lamb retail cuts***L Cobiac<sup>1</sup>, V Droulez<sup>2</sup>, P Leppard<sup>1</sup>*<sup>1</sup>*CSIRO Health Sciences and Nutrition, PO Box 10041, Adelaide BC SA 5000*<sup>2</sup>*Nutrition Consultant, 40 Railway Parade Petersham NSW 2049*

Accurate nutrient composition data are essential for assessing dietary intakes, determining relationships between dietary intake and disease outcomes and for communicating nutrition information to consumers. Since the current nutrient composition data for beef and lamb were collected, production and butchering practices have changed in response to consumer demand for lean meat. Consequently, nutrient composition data for beef and lamb need to be updated.

Variability in beef and lamb retail cuts, especially in the amount of visible fat, makes it difficult to provide a single figure to describe the nutrient composition of a retail cut as purchased. An objective descriptor is therefore required which is meaningful to consumers. The level of external (selvedge) fat is a visible variable that many consumers use to differentiate beef and lamb cuts. Hence a survey of beef and lamb available for purchase was conducted from July-August 2000 to assess the feasibility of developing a potentially useful descriptor of meat based on the average selvedge or external fat present on each of the cuts of meat.

Random samples of retail beef and lamb cuts were purchased from a stratified sample of three major supermarket chains and butchers in Melbourne, Sydney and Brisbane representing a mix of socioeconomic areas. The external fat was measured (to the nearest mm) at three sites on each side of the meat cut, along with the maximum external fat depth. The average level of external fat for this representative sample of retail meat cuts was calculated. Gross composition was conducted by AGAL for each of the samples of the 15 cuts, using knife dissection, and the average percentage of lean and total trimmable fat (see Table 1) for each cut was determined. Total trimmable fat is the amount of fat trimmed from the retail cuts compared to the amount of lean meat. It should not be confused with the fat or lipid content of retail cuts which will be determined in the next phase of this project.

Table 1. Total trimmable fat (%) of raw beef cuts as purchased in three capital cities, Australia

<b>Beef</b>	<b>n</b>	<b>Mean</b>	<b>SD</b>	<b>Min</b>	<b>Max</b>
Fillet steak	61	7.4	5.0	0.9	22.8
Gravy beef	41	19.0	5.9	8.8	34.3
Round steak	66	6.8	4.7	0.7	21.5
Rump steak	65	17.1	5.9	0.5	35.1
Scotch Fillet	67	18.5	6.0	1.7	35.5
Sirloin steak	67	22.2	6.2	4.8	35.2
T-bone steak	66	21.3	4.7	12.3	34.5
Topside steak	65	3.7	3.2	0.3	16.3

The data confirm the availability of a wide range of lean beef cuts (Table 1). Due to the variability of total trimmable fat on retail cuts, an objective descriptor is required to differentiate between the nutrient composition of retail beef and lamb cuts. An algorithm was developed to relate the external (selvedge) fat measure in millimetres to the level of total trimmable fat as determined by gross composition to describe the retail supply.