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Consumers' preference

APRICULTURAL FOONOMIC

Market Research Centre

# A Pilot Study of Consumer Selection and Usage of Beef Cuts in Palmerston North

by J. R. McCOMISH

MARKET RESEARCH CENTRE | MASSEY UNIVERSITY PALMERSTON NORTH CONSUMER RESEARCH REPORT NO: 2
OCTOBER 1971

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#### PREFACE

The Market Research Centre was established at Massey University in June 1970. A major objective of the Centre is to provide economic and market information to commercial and Government organisations. This publication is the second in a new series of Consumer Research Reports and presents the results of a pilot study of consumer knowledge and usage of beef.

A preliminary investigation of available information on the domestic meat market revealed that no definitive studies had been published in New Zealand of consumer attitudes to meat and the manner in which consumers select and use the various cuts of meat available to them. A comprehensive programme of research has been commenced in the Market Research Centre to examine these and related questions. This Report is the first of a series which will be published as the work proceeds.

The author, Mr. J.R.McComish, emphasises that this survey is a pilot study designed to formulate hypotheses, test methodology and to generate discussion. The results apply only to a sample of 38 Palmerston North housewives. The findings are in no way conclusive and should not be used to make generalisations about the New Zealand population as a whole. In spite of these limitations, it is hoped that the Report will promote discussion within the meat trade and lead to suggestions for further research projects in the meat marketing area.

A.R. Frampton,
Professor of Agricultural Economics and
Farm Management, and Director of Market
Research Centre.

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#### INTRODUCTION

The decision to carry out this study resulted from a preliminary investigation of available information on the domestic meat market, initiated by the Market Research Centre and carried out by staff of the Centre. All aspects of the marketing system were covered initially; including promotion, local marketing arrangements for store and slaughter animals, slaughter and processing of meat, grading of carcasses, wholesale and retail distribution, merchandising and pricing, and the legislation controlling the various stages. It is intended that various aspects of this background study will be discussed in future reports.

Because meat is, in fact, a varied range of products whose diversity permits no easy generalisation, it was decided that initial emphasis would be given to beef. The marketing of beef has received considerable attention over recent years because of its displayed and potential capacity to increase export earnings. Beef production has been encouraged for this reason, and because of fears for the future profitability of dairy produce. Furthermore, a greater proportion of beef than of sheepmeats is consumed locally, making the domestic market of greater concern to producers, and less markedly influenced by export requirements.

Any review of New Zealand literature in the field of beef marketing will reveal the considerable attention given to the problem of identifying consumer preferences and the relation of these, through the grading system, to livestock production and processing. The work of Barton 1/2, Everitt 2/2, and Kirton is notable in this area. Little primary data of a quantitative nature has been sought from the New Zealand consumer. However, most studies appear to rely heavily on the considerable body of research that has been carried out in the U.S.A. Consumer research carried out by the Meat Industry Research Institute of New Zealand 5/2 seems to have been limited to small scale taste panel tests. There would appear to have been no definitive studies in New Zealand of consumer attitudes to meat, their uses of meat or meat products, and the basis from which they select types and cuts of meat from the range available to them.

<sup>1.</sup> Barton, R.A. Quality in cattle and beef - a changed concept. Sheepfarming Annual, pp.93-106, 1965.

Aim of beef producers should be to give consumer exactly what he wants. N.Z. Jnl. Agr., 112(1), pp.17-19, 1966.

The New Zealand National beef cuts judging standard. <u>Inst. Meat Bull</u>. 61: pp.10-22, 1968.

<sup>2.</sup> Everitt, G.C. Recent trends in carcass evaluation. <a href="Proc.Aust.Soc.Anim.Prodn">Proc.Aust.Soc.Anim.Prodn</a>. 6: pp.268-283, 1966.

Everitt, G.C. Classification and grading of beef and veal carcasses.

<sup>&</sup>amp; Evans, S.T. Proc. N.Z.Soc.Anim.Prodn., 30: p.144, 1970.

Kirton, A.H. Meat Grading standards and marketing requirements.
 <u>Proc.Ruakura Farmers Conf. Week</u>, pp.6-18, 1966.
 Grading - is there a colour prejudice? <u>N.Z.Jnl.Agric.</u>, 119(3): pp.17-20, 1969.

<sup>4.</sup> Morgan, J.H.L. Taste panel relationships. Proc. N. Z. Soc. Anim. Prodn., 27: p.71, 1967.

It is also noticeable that most of the research in this area has ignored the questions of carcass cutting and the pricing of cuts - factors which have an obvious and important bearing on the return from a given carcass. Discussions with Mr. R.A. Barton (Reader in Sheep Husbandry at Massey University, a member of the Meat Grades Committee of the Standards Association of New Zealand, and presently Chairman of the Meat Working Party of the National Distribution Council) and Mr. D.J. Fyfe (Secretary, New Zealand Meat Retailers' Federation) have indicated that the relevance of the present Board of Trade Meat Grading Regulations to consumer requirements might be open to question.

On the basis of these comments, it was decided that a study of the relevance of the standard specification of cuts to consumer selection and usage of beef would provide a fruitful starting point for a continuing programme of research into the marketing of meat within New Zealand.

#### **OBJECTIVES**

This survey was intended only as a pilot study and was aimed at formulating hypotheses, testing methodology and questionnaire design, and generating discussion. Although the findings referred to in this report have qualitative relevance, the sample was too small for any quantifiable inferences to be drawn from it. The findings, therefore, are in no way conclusive and should not be used to make any generalisations about New Zealand beef consumers as a group.

In detail, its objectives were as follows:

- i) to investigate consumer knowledge of beef cuts as defined in the Board of Trade Meat Grading Regulations  $\frac{6}{3}$ .
- ii) to relate those definitions to the criteria used by consumers in their selection of cuts,
- iii) to facilitate the design of future studies by providing information on the ability of consumers to recall the type, cut and price of past meat purchases, and on their ability to verbalise purchase requirements and the criteria by which they assess quality,
- (iv) to test two alternative questionnaire structures.

#### METHODOLOGY

Thirty-eight interviews were conducted in the Palmerston North urban area in clusters of five interviews around starting points selected at random from a grid map of the area. All interviewing was carried out by the writer and took place between 9.00 a.m. and 5.00 p.m. on weekdays. Working housewives, therefore, are likely to be under represented in the sample recruited.

<sup>5.</sup> Details of these Regulations are given in Appendices A and B.

<sup>6.</sup> See Appendix A.

A copy of the questionnaire used in all interviews is shown in Appendix C. It will be noted that two basic procedures were tested. In the first, respondents were asked about individual cuts defined in the standard specification and data on consumer knowledge and usage obtained for each. In the second, respondents were questioned in terms of their methods of cooking steaks, (that is, in terms of grilling, frying, braising and stewing) and data was obtained only for the steaks spontaneously mentioned within this framework.

Although the basic data sought was obtained in response to formal questions, all spontaneous comments were probed fully. Where relevant, such unstructured data has been included in the report.

Consumers were classified, according to age, into the following groups:

Age		No.
Under 35		13
35 - 49		13
50 and over		12
	Total	38

No other classification data was sought.

A survey of beef prices obtaining in ten randomly selected butchers' shops, and in the Co-operative Wholesale Society shop at their Longburn Works, was carried out before the main survey. Results are shown in Appendix D.

#### SUMMARY OF FINDINGS

The following paragraphs summarise the main findings of the study. The points made in this section are supported by tabular data contained in Appendix E and, for more detailed information on the reported behaviour of the sample, reference should be made to those tables. It must, however, be emphasised that the inclusion of this data is not intended to suggest that it is typical of any group other than the 38 respondents interviewed.

#### Section 1: Specified Cuts

#### i) Usage of specified cuts

Because most respondents found it impossible to state with any certainty whether or not they had <u>ever</u> bought a particular cut, question 1.1(a) in the questionnaire:
"Have you ever bought ..... (cut)?" was modified during fieldwork to read "Do you ever buy ..... (cut)?" Because the question of what constitutes a <u>current</u> range of purchase was left vague, the data provided has limited usefulness. Frequency of purchase was also difficult to ascertain, but a distinction was drawn between cuts which were purchased with some regularity and those bought only occasionally. With these reservations the following comments are made.

Corned silverside was bought, at least occasionally, by more respondents than any other cut. It was purchased more frequently by housewives in the 35-49 age group

than by those in the older and younger groups. Several respondents indicated that they purchase it more frequently in summer than in winter. (Tables 1, 3 and 4).

Mince was purchased more frequently than beef in any other form. It was especially popular with housewives in the youngest group. Spontaneous comments suggest that the main reason for some respondents' not buying mince was the addition of preservatives to it. (Tables 2 and 3). Sirloin was purchased by more respondents than any other roast. However, few purchased it frequently and, on the basis of frequency of purchase, topside was more popular - particularly with housewives in the middle age group. (Tables 1 and 3).

Gravy beef and shin were more commonly purchased by older housewives than by those in the youngest group. Shin appears to be purchased far more frequently in winter than in summer. (Tables 1 and 4). Wing rib, prime ribs and blade roast were purchased by comparatively few respondents, and again were more typically purchased by older housewives. (Table 1).

No housewife in this sample bought chuck ribs, flat ribs, back ribs or leg by name. (Table 1).

Older housewives purchased a wider range of the specified cuts than did younger housewives. (Table 1).

#### ii) Knowledge of cuts not bought

All non-buyers of silverside, mince, sirloin, topside, gravy beef, shin and brisket had heard of those cuts. Few respondents had not heard of wing rib or prime ribs, but two-thirds or more were not aware of the terms blade (or bolar) roast, chuck ribs, flat ribs, back ribs or leg. (Table 2).

Wing rib was better known amongst older housewives than amongst younger ones, but there was little variation in knowledge of the other cuts among the three groups. (Table 2).

#### iii) Expected price for specified cuts used

In spite of the recent widespread publicity given to consumer price levels, many respondents had surprisingly little idea of the prices they were paying for the various specified cuts. Although meat purchases form an important part of most household expenditure little more than half the respondents (on average over the whole range of cuts) could attempt to specify the prices they expected to pay. Where the attempt was made the prices given varied widely (from 35c per pound to 80c per pound in the case of silverside), and to a large extent this reflects a variation in retail beef prices which existed in Palmerston North shops at the time of the survey. This price variability is shown in Appendix D. The prices of mince and gravy beef were generally better known than those of other specified cuts. Those of silverside, brisket and shin were less well known. (Table 5).

There was little variation in price awareness between the three age groups. (Table 5(a) ).

As might be expected, respondents were more aware of the prices of the cuts they purchased frequently than of those purchased infrequently. (Table 5(b) ).

#### iv) Methods of cooking specified cuts

Although housewives drew distinction between pot roasting, oven roasting and roasting in electric frypans, and in some cases supplied detailed recipes for sauces, gravies, and garnishes, most cuts were associated with only one basic cooking method. Thus sirloin, wing rib, prime ribs, uncorned silverside and uncorned brisket were practically always roasted or pot roasted, and corned silverside and brisket always boiled. There were minor exceptions to these rules. For instance, two families not partial to roast meat boiled sirloin and (in one case) uncorned silverside, and one who had roasted corned silverside in error found the result quite acceptably palatable. (Table 6).

Beef in its cheaper forms (mince, shinmeat and gravy beef) was used in a variety of ways. However, shin was used mainly, in winter, for making soup stock and most respondents considered its other uses as being secondary to this. Gravy beef was purchased most frequently as pet food, several respondents commenting that they used it for stews or casseroles only when better meat was not available, and three going so far as to describe it as unfit for human consumption. Mince alone seems to be purchased as much for its versatility as its cheapness. (Tables 6 and 6(a)).

Topside and, to a lesser extent, blade roast were interesting in that they were not only roasted or pot roasted, but also used in stews and casseroles. Roasting is generally associated with the more expensive cuts of meat while the cheaper cuts are bought for stews. Comments from housewives in the ages between 35 and 49 suggest that this versatility accounts for the popularity of topside with that group. (Tables 6 and 6(b)).

#### v) Knowledge of location of specified cuts within the carcass

Half the respondents would not attempt to specify the origin within the carcass of the various cuts they bought. Those who did were generally as likely to be wrong as right. (Table 7).

Perhaps because of its descriptive name more respondents attempted to locate shin than any other cut. Most placed it, incorrectly, in the hind leg. Brisket was correctly located by only one respondent. There appears to be a positive correlation between age and knowledge of cut locations. It would be plausible to suggest that the longer experience of older housewives would explain this, but this may disguise a difference in attitudes to meat purchasing. Younger housewives, and to some extent those in the middle age group, appear to rely largely on the butcher to supply cuts as ordered, while the comments of older housewives suggest that they are more likely to examine cuts to ensure they meet specification and quality standards.

#### Section 2: Specified Cooking Methods - Steak

#### i) Qualities sought in steaks for grilling, frying, braising and stewing

Questions 2.1, 2.5, 2.9 and 2.13 ("What do you consider makes a steak especially suitable for grilling, frying, braising, stewing?") were designed to provide information on the identifiable characteristics housewives seek when buying steaks. Most respondents, however, tended automatically to think in terms of the qualities they look for in cooked meat. In Tables 8-11, responses have been grouped into these two categories 'identifiable characteristics sought' and 'eating qualities sought'.

An important group of respondents bought steaks for each specified use simply because those steaks were associated in their minds with the particular cooking methods, or because the price of the steak suggested its most likely end use. Several respondents, therefore, considered that the more expensive a steak the more suitable it would be for grilling, and that cheaper steaks would be suitable only for braising or stewing. It should be remembered that these responses were unprompted and that a proportion of the more specific responses given, especially where these include eating qualities sought, may disguise similar purchasing behaviour.

The amount of fat cover was the characteristic most commonly used in assessing a steak's suitability for frying or grilling. Although some respondents were looking for completely lean meat ("as little fat as possible" or "no fat") more considered some fat, in the form of an adequate edging of fat or marbling, to be desirable. Fewer respondents suggested an absence of gristle, bone or connective tissue as a characteristic they looked for, and only one spontaneously mentioned colour. Only two respondents mentioned thickness as a criterion - one preferring thick steaks and one preferring thin. (Tables 8 and 9).

In the case of braising and stewing steaks no respondent mentioned fat as a desirable characteristic and about one quarter of the respondents listed a minimum or complete absence of fat as a quality they sought. Several mentioned texture as being important - particularly for braising steak. (Tables 10 and 11).

Tenderness was, predictably, the eating quality most often sought in grilling and frying steaks. However, it is worth noting that several respondents, when faced with a hypothetical choice, were prepared to sacrifice tenderness for flavour. Juiciness was another characteristic considered important by several respondents. (Tables 8 and 9).

Flavour was mentioned more often than tenderness as a quality sought in both braising and stewing steaks, several respondents commenting that any meat would become tender if stewed long enough. The amount and quality of gravy produced by the meat was mentioned by several respondents. (Tables 10 and 11).

#### ii) Incidence of frying and/or grilling

Grilling was more widespread amongst respondents than was frying; more than half the sample never fry steaks while fewer than one in five never grill steaks.

There was marked variation between the three age groups on this point. Frying of steaks was far more common amongst younger housewives than amongst those in the two older groups and, in the oldest group, all respondents grill steaks at least some of the time while only two ever fry steaks. (Table 12(a) ).

#### iii) Steaks used for specified cooking methods

Practically all respondents used steaks from the rump or sirloin for frying and grilling. The only exceptions were three respondents who grilled cross-cut blade steak, one who grilled topside steak, one who fried topside steak and one who fried chuck steak. No specific mention of scotch fillet (under any of its aliases) was made by any respondent. However, many used the term 'fillet steak' - a name which is not included in the standard specification and which may refer to either eye fillet (tenderloin) or scotch fillet (rib eye or club steak). What substantiating evidence there was - price and location of the cut within the carcass - suggested that most, if not all, respondents were referring to eye fillet. Few respondents bought T-bone steak and all who did grilled it. (Table 13).

Blade steak was the most commonly specified steak for both braising and stewing. Fewer respondents purchased skirt steak, chuck steak and topside and only one mentioned flank steak.

Twenty-five respondents (80% of those who made stews) reported asking for 'beefsteak', 'steak and kidney', or 'stewing steak' rather than a specified cut at least some of the time.

Over all specified cooking methods, rump steak was purchased by more respondents than was any other cut.

There was little marked variation in steaks used between the three age groups, although topside was again specified more often by housewives in the middle age group, and there was some evidence that blade steak is more commonly used by younger housewives and skirt steak by those in the oldest group. (Table 13(a)).

#### iv) Expected price for steaks used

Rather more respondents were able to indicate prices for steaks than was the case for specified cuts (69% as opposed to 58%). (Table 14).

Younger housewives specified prices for steaks more often than they did for the specified cuts (Table 5(a)) and appeared, in fact, to be more price conscious in this regard than were older housewives. (Table 15(a)).

#### v) Location of steaks within carcass

The origins within the carcass of the various steaks were even less well known than was the case for the specified cuts. Less than one-third of respondents attempted to locate the steaks they bought, and half of those attempts were wrong. All respondents who attempted to locate rump steak placed it, incorrectly, in the buttock.

#### INTERPRETATION

It should be emphasised that no definite conclusions can be drawn from a survey of such limited scope as this. However, the findings presented in the previous section do suggest several important hypotheses which, in the opinion of the writer, should form the basis for a more definitive study. The comments offered in this section are designed to generate debate relating to these hypotheses.

The present standard specification for beef cuts implies that knowledge of the origin within the carcass of the various cuts gives the consumer sufficient indication of quality differentials to aid her in her selection of meat. (This implication is supported by the posters observed in several stores, which show carcasses marked off into their component cuts). The specifications make no allowance for differences in quality between carcasses and, therefore, give an indication of the relative quality of cuts only within individual carcasses. It is incorrect to assume that one cut is, per se, better than another no matter what the condition of the carcasses from which they originate. To illustrate this point, porterhouse steak has characteristics which are considered more desirable than those of blade steak from the same carcass. However, the condition and post-mortem treatment of the carcass may mean that blade steak from a given carcass may reflect those same qualities better than porterhouse from an inferior carcass.

Were the domestic grading system able to draw a finer distinction between carcasses of different quality, rational selection could be made on the admittedly complex basis of both cut and grade. As it is, the vast bulk of beef retailed in New Zealand is graded red stripe, and wide variations in quality apparently occur within that grade. The consumer is thus obliged to resort to alternative methods of assessing the quality of the meat she buys. She may make a visual assessment of its quality, but this is difficult and the comments made by these respondents suggest that most feel unqualified to make such as assessment. Alternatively, she may rely on the advice of her butcher but, again, from respondents' comments it appears that many are reluctant to do this. It would seem that most consumers associate particular cuts with a specific cooking method, and use familiar cut descriptions and, to a lesser extent, relative prices as indicators of quality and, therefore, of suitability for given methods of cooking.

<sup>7.</sup> See Appendix B.

This selection of meat in terms of planned end use has three important corollaries:

- 1. Because the desired characteristics of the cooked meat vary according to the cooking method used, the criteria used at the time of purchase to evaluate cuts will also differ. This may have important implications for both ante-mortem and post-mortem treatment of beef, and also means that a carcass which will yield the highest quality frying or grilling steaks will not necessarily yield the highest quality roasts.
- 2. The importance of quality differentials varies according to the cooking method to be used. Relatively small differences in quality can be perceived in fried or grilled steak, but fairly major differences in the raw cuts will not materially affect their palatability after stewing. This factor will affect the substitutability of one cut for another and thus the price elasticity of demand for the various cuts.
- 3. Respondents' comments suggest that important socio-economic factors may be associated with the different cooking methods. Stewing appears to be associated with low income households while grilling and frying of steaks tends to be related to higher socio-economic status. Because individual cuts are associated directly with these cooking methods, their desirability may be coloured by the same factors, resulting in further differences in the price and income elasticities of demand.

Housewives generally appeared bewildered when faced by the full range of cuts available - and this study included only beef. Lacking the ability or confidence to make a visual assessment of meat quality they limit purchases to the small range of cuts with which experience or popular tradition has made them familiar.

#### RECOMMENDATIONS FOR FUTURE RESEARCH

The hypotheses suggested above should be tested over a representative sample of consumers. The sample should be large enough for the influence of important variables on consumption and purchasing patterns to be measured. These variables should include age of housewife, working status of housewife, income of household, size and structure of household, and ethnic background. Variations between regions should also be examined.

Several important new areas for research have been suggested by this study:

- 1. A more detailed examination of the criteria by which consumers assess the quality of cooked meats, and the relationship of these to the visually identifiable characteristics of raw meat.
- A study of consumers' attitudes to the post-mortem treatment of meat and, in particular, to the effects of ageing.

- 3. A study of the differences in consumption and purchasing patterns between supermarket customers and butchers' customers.
- 4. An examination of retail price formation for meat.
- Using data on consumer demand for individual beef cuts, to formulate optimum pricing and cutting policies for meat retailers.

This survey provided useful information on research methodology and questionnaire design. Although this information is not discussed in detail in this report, it will influence and facilitate the design of future stages in this programme of research.

#### APPENDIX A

#### STANDARD SPECIFICATION FOR CUTS

The list of cuts used in this study was taken from the "New Zealand Standard Specification for Grades and Definitions of Joints and Cuts of Meat for Sale on the New Zealand Market" (NZSS 681:1962) published by the New Zealand Standards Institute. These standards are presently being revised but will remain substantially the same as those current at the time of the survey.

Precise definitions for the following joints and cuts of beef can be found in the above publication.

203.1	Steaks
	203:1.1 Rump steak
	203:1.2 Tenderloin or Eye Fillet steak
	203:1.3 Undercut steak
	203:1.4 T-Bone steak or Porterhouse Steak Bone In
	203:1.5 Porterhouse Steak Bone Out or Sirloin steak
	203:1.6 Club steak, Rib Eye steak or Scotch Fillet steak
	203:1.7 Topside steak
	203:1.8 Thick Flank steak
	203:1.9 Blade or Bolar steak
	203:1.10 Cross Cut Blade steak
	203:1.11 Chuck steak
	203:1.12 Skirt steak
203:2	Silverside
203:3	Sirloin
203:4	Prime Ribs
203:5	Back Ribs
203:6	Chuck Ribs
203:7	Wing rib
203:8	Flat Ribs
203:9	Set of Ribs
203:10	Rump and Loin
203:11	Gravy Beef
203:12	Shin Meat
203:13	Brisket or Breast
203:14	Long Crop
203:15	Leg
203:16	Half Leg
203:17	Shin
203:18	Half Shin
203:19	Knuckle End Shin
203:20	Middle Cut Shin

203:21. Thick End Shin

203:22 Thin Flank

203:23 Buttock

203:24 Pony Head

203:23 Buttock

203:24 Pony Head

203:25 Corned Beef

306 Mincemeat

307 Steak Mince

The location of these cuts within the carcass is shown in Figure 1.

This list was modified for the purposes of the study. Final cuts only were included - primal or intermediate cuts such as Rump and Loin, Long Crop, and Pony Head were excluded. Discussions with butchers revealed that Topside and Blade (Bolar) are commonly bought as a piece rather than as steaks, and Thin Flank is normally sold as steak or gravy beef.

The list of cuts specified in the questionnaire was as follows:

Silverside

Topside

Sirloin

Prime Ribs

Back Ribs

Blade or Bolar

Chuck Ribs

Wing Rib

Flat Ribs

Brisket

Leg

Shin

Gravy Beef

Mince

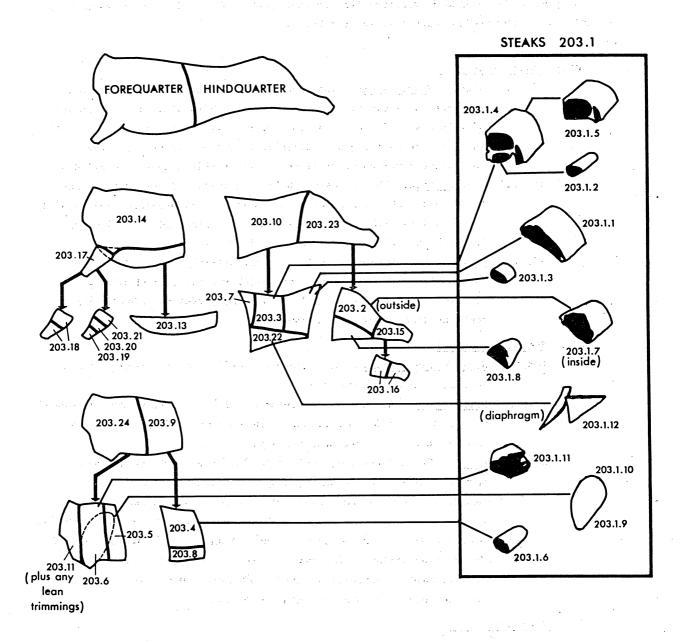


Figure 1. Location of Specified Joints and Cuts in Carcass.

#### APPENDIX B

#### GRADING AND MARKING

The part of the standard specification covering grades of beef for human consumption for sale on the New Zealand market is set out below.

105 BEEF

#### 105.1 First Grade Beef

- 105.1.1 General Requirements. The carcass shall be of oxen or heifer or, in exceptional cases, of young cows: Provided that, for the purpose of this standard specification, "young cows" refers to cow carcasses in which the cartilaginous extensions of the spinous processes of the thoracic vertebrae still show a reasonable amount of cartilage.
- 105.1.2 <u>Conformation</u>. The carcasses shall be heavily and uniformly fleshed throughout. The rounds and loins shall be well developed and rounded. The shoulders, ribs and briskets shall be thick and well fleshed.

  The neck and chine shall be relatively short.
- 105.1.3 Finish. The carcasses shall be almost entirely covered with smooth fat. Cod (or udder), kidney, and aitch fat shall be abundant, but not excessive. The fat shall be firm and creamy in colour. The flesh shall be firm and of good colour.

#### 105.2 Second Grade Beef

- 105.2.1 General Requirements. The carcasses shall be of unfinished oxen or heifers or good quality cows.
- 105.2.2 <u>Conformation</u>. The loins and rounds shall be reasonably well fleshed.

  The shoulders, ribs, and briskets shall be reasonably thick. The forequarters may be reasonably heavy.
- 105.2.3 Finish. The fat covering shall extend over meat of the external surface, but may be somewhat patchy over rumps, loins, ribs and shoulders. The neck and lower parts of the rounds, shoulders, and shins generally may have a little fat covering. Cod (or udder), kidney and aitch fats may be either in moderate supply or somewhat excessive. The interior walls and forequarters may be only partially covered. The fat shall be firm and may have a slight colour tinge. The flesh shall be moderately firm and of good colour.

#### 105.3 Third Grade Beef

105.3.1 This grade shall be of carcasses which fail to meet the requirements for first or second-grade beef.

#### 105.4 Manufacturing-grade Beef

105.4.1 This grade shall include all carcasses which fail to meet the requirements for third grade beef by reason of poorness or colour together with all bull carcasses.

#### GRADE MARKS

Every carcass which has been graded in accordance with the standard specification must be stripe marked. The colours and numbers of stripes prescribed for beef are listed below.

First grade

One red stripe

Second grade

One blue stripe

Third grade

One yellow stripe

Manufacturing Grade

Two chocolate stripes

APPENDIX	<u>C</u>

#### QUESTIONNAIRE

1.	I have	here a list of beef cuts which I would like to ask you about.
	The fir	rst on the list is
	1.1(a)	Have you ever bought?
		IF NO (to 1(a))
	(ъ)	Have you ever heard of before?
		IF YES (to 1(a))
	(c)	How often do you buy it? Would you say seldom, occasionally, or frequently?
	1.2	How much (per pound) would you expect to pay for?
	1.3	How do you normally cook it?
		Any other ways?
	1.4	Now, could you show me on this diagram which part of the carcass
	*	comes from?
	1.5	PROBE ANY COMMENTS ON QUALITY, ECONOMY, CONVENIENCE, VERSATILITY, ETC.
		REPEAT IN ROTATION FOR EACH CUT SPECIFIED
2.	As you	know, many of these cuts may be sold as steak, and these steaks are suitable
	for dia	fferent uses.
	2.1	What do you consider makes a steak especially suitable for grilling?
	2.2	Which steaks do you normally use for grilling?
		Any others?
	2.3	How much would you expect to pay for?
		REPEAT FOR EACH STEAK MENTIONED.
		Could you tell me (or show me on this diagram) what part of the carcass
	2.4	
	•	each of these steaks comes from?
	2.5	What do you consider makes a steak especially suitable for frying?
	2.6	Which steaks do you normally use for frying?
		Any others?

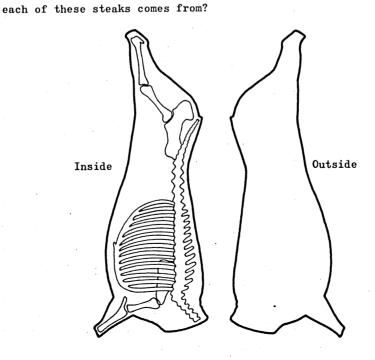
2.7	How much would you expect to pay for?
	REPEAT FOR EACH STEAK MENTIONED.
2.8	Could you tell me (or show me on this diagram) what part of the carcass
	each of these steaks comes from?
2.9	What do you consider makes a steak especially suitable for braising?
2.10	Which steaks do you normally use for braising?
	Any others?
2.11	How much do you expect to pay for?
	REPEAT FOR EACH STEAK MENTIONED.
2.12	Could you tell me (or show me on this diagram) what part of the carcass
	each of these steaks comes from?
2.13	What do you consider makes a steak especially suitable for stewing?
2.14	Which steaks do you normally use for making stews?
•	Any others?

2.16 Could you tell me (or show me on this diagram) what part of the carcass

How much would you expect to pay for

REPEAT FOR EACH STEAK MENTIONED.

2.15



#### APPENDIX D

The table below shows the range of cuts and prices displayed by a randomly selected group of eleven Palmerston North meat retailers at the time of the survey.

The group comprised two supermarkets, eight retail butchers, and the Longburn Freezing Works retail shop of the Co-operative Wholesale Society.

RETAIL PRICES FOR BEEF CUTS

	Displayed Price Per Pound (cents)										
Cut	Supermarkets			Butchers						CWS	
	1	2	: 3	4	5	6	7	8	9	10	: 11
Silverside : Corned	- 60	67	62	60	59	63	58	62	60	60	50
Uncorned	_	_	_		_	, <u> </u>	-	60	.58	_	· _
Topside	59	64	62	62	59	63	60	62	60	60	50
Topside : corner cut	_	_	62	· _		_	58		_	_	50
Sirloin : on the bone	57	59	_	55	55	_	-	_	59	60	-
rolled	-	59	66	62	59	· -	62	63	62	. 80	52
T-Bone steak	68	79	_	-	55	-	65	80	-	60	-
Porterhouse steak	78	91	84	84	83	88	80	85	88	80	70
Eye Fillet Steak	99	1.10	1.00	1.00	89	1.05	1.00	98	96	1.00	80
Undercut steak	_	-	_	84	85	_	_	_	٠ _	-	70
Top rump	_	77	-	-	61	-	-	60	_	-	-
Rump steak	71	81	74	74	69	77	78	76	76	70	65
Wing rib	-	59	-	52	56	64	60	-	59	50	50
Prime ribs : on the bone	-	39	-	44	52	_	-	_	-	_	-
Prime ribs rolled	56	48	60	54	57	63	56	62	58	60	50
Scotch fillet steak	-	87	-	_	_	-	-	_	_	-	-
Rib eye steak	-	_	٠	-	_	· -	·	-		82	_
Club steak	_	-	80	_	. —		-	-	_	-	-
Back ribs	-	-	_	54	57	-	_	_	58	50	48
Blade roast	-	-	_	60	56	_	58	_	60	60	-
Blade steak	57	63	62	62	56	63	60	-	60	60	50
Cross cut blade steak	58	66	62	-	61	63	62	64	60	_	50
Chuck ribs	_	_	_	44/54	57	_	_	_	56	-	-
Chuck steak	55	54	56	54	53	60	48	58	58	50	48
Thick flank steak	59	63	62	62	56	63	60	_	68	60	50
Skirt steak	_	61	:	62	56	63	58	62	60	60	45
Brisket : corned	43	41	_ :	46	47	52	48	50	48	44	46
uncorned	43	_	-	<u> -</u>	_	*. <b>-</b>	,	_	48	40	-
Shin	_	39	_	_	38	_	35	-	35	26	22/26
Shinmeat	_	45	-	46	48	, <sup>, ,</sup> _	48	_	_	-	
Gravy beef	42	45	50	46	48	. 50	48	50	50	46	45
Steak and kidney	52	56	_	_	_	-	62	-	-	_	-
Mince	_	-	_	_	43	_	_	_	46	40/45	35
Steak Mince	40	44	56	46	56	50	48	58		60	

None of these shops displayed, or quoted prices for, leg or thin flank.

#### APPENDIX E

#### TABLES OF FINDINGS

Table	1	Specified cuts ever bought: by age of respondent.
	2	Specified cuts not heard of : by age of respondent.
• ,	3	Cuts purchased frequently: by age of respondent.
	4	Seasonal usage.
	5	Prices respondents expect to pay for specified cuts used.
	5(a)	Ability to specify price: by age of respondent.
	5(b)	Ability to specify price: by frequency of purchase.
	6	Method of cooking specified cuts.
	6(a)	Method of cooking gravy beef.
	6(b)	Method of cooking topside.
	7	Location of cuts within the carcass.
	7(a)	Location of cuts within carcass: by age of respondent.
	8	Qualities sought in grilling steaks.
	9	Qualities sought in frying steaks.
	10	Qualities sought in braising steaks.
	11	Qualities sought in stewing steak.
	12	Summary of qualities sought in grilling, frying, braising and stewing steaks.
	13	Steaks used for specified cooking methods.
	13(a)	Steaks used: by age of respondent.
	14	Expected price for steaks used.
	15	Location of steaks within carcass.

N.B. The data presented in these tables is intended only to show the basis on which the hypotheses presented in the body of the report have been formed. Readers should remember when considering these tables, that the sample employed is not to be used as a basis for any quantitative assertions about any group other than the thirty-eight housewives interviewed.

TABLE 1

#### SPECIFIED CUTS EVER BOUGHT : BY AGE OF RESPONDENT

Q.1.1(a) "Do you ever buy .....(cut)?"

Cuts Rought	Age of Respondent									
Cuts Bought	Unde No.	r 35 %	35 No.	<b>-</b> 49 %	50 an No.	d over	To No.	tal %		
Silverside	11	85	12	92	9	75	32	84		
Mince	11	85	11	85	9	75	31	82		
Sirloin	9	69	8	62	10	83	27	71		
Topside	5	38	12	92	9	75	26	68		
Gravy beef	6	46	10	77	9	75	26	68		
Shin	5	38	10	77.	8	67	23	61		
Brisket	7	54	4	31	5	42	16	42		
Wing rib	1	8	, 4	31	5	42	. 10	26		
Prime ribs	1	8	1	8	5	42	7	18		
Blade/bolar	1	8	2	15	1 .	8	4	11		
Base (All Respond- ents)	13	100	13	100	12	100	38	100		
Average No. of Cuts Bought	4.38		5.77		5.83		5.32			

#### TABLE 2

#### SPECIFIED CUTS NOT HEARD OF: BY AGE OF RESPONDENT

Q.1.1(b) If <u>cut never bought</u>: "Have you ever heard of ..........(cut) before?"

Cuts Not		Age of Respondent										
Heard of	Under 35 No. %		35-49 No. %		50 ar No.	nd over	Total No. %					
Prime ribs	1	8	3	23	2	17	6	16				
Wing rib	6	46	3	23	· .	- <u>-</u>	9	24				
Blade/bolar	9	69	8	62	7	58	24	63				
Chuck ribs	8	62	8	62 *	9	<b>7</b> 5 .	25	66				
Leg	10	77	11	85	7	58	28	74				
Flat ribs	11	85	12	92	10	83	33	87				
Back ribs	10	77	13	100	12	100	35	92				
Base (All Respondents)	13	100	13	100	12	100	38	100				
Average No. of Cuts not Heard of	4.23		4.46		3.92		4.21					

TABLE 3 <u>CUTS PURCHASED FREQUENTLY</u>: BY AGE OF RESPONDENT

Q.1.1(c) If <u>cut ever bought</u> "How often do you buy it?"

	Age of Respondent								
Cuts Purchased	Under No.	· 35	35 No.	- 49 %		50 and	l over	Tot No.	al %
Mince	10	77	8	62		4	33	22	58
Silverside	3	23	6	46		4	33	13	34
Topside	3	23	7	54		3	25	13	34
Gravy beef	3	23	7	54		1	8	11 -	29
Shin	3	23	4	31		3	25	10	26
Sirloin	2	15	4	31		1	8	7	18
Prime ribs	1	8	-	-		3	25	4	11
Brisket	2	15	-	-			· ·	2	5
Blade/bolar	_	-	1	8		1	,8	2	5
Base (All Respondents)	13	100	13	100		12	100	38	100
Average No. of Cuts Purchased Frequently	2.08		2.85			1.67		2,21	

#### TABLE 4 SEASONAL USAGE

Several respondents spontaneously indicated seasonal variations in the frequency of purchase of some cuts. Where this has occurred, the most frequent usage has been shown in the foregoing tables. The seasonal variation is shown below.

	Frequency of Purchase											
Cut	Season	Frequently	Infrequently	Never	No. of Respondents							
Silverside	Summer	4	1									
	Winter	· <u>-</u>	3	2	5							
Topside	Summer	<b></b>	2	, <u>-</u>								
	Winter	2	· •	-	2							
Brisket	Summer	-	1	-								
	Winter	-	-	1	1							
Shin	Summer		1	13								
	Winter	8	6	<del></del>	14							
Gravy beef	Summer	_		1 1								
	Winter	_	1	· <del>-</del>	1							
Mince	Summer	- · · · · · · · · · · · · · · · · · · ·	<b>1</b> * .	· -	•							
	Winter	1	-		1							

TABLE 5 PRICES RESPONDENTS EXPECT TO PAY FOR SPECIFIED CUTS USED

Q.1.2 "How much (per pound) would you expect to pay for .....(cut)?"

Cut	No. of Users	Price Specified (No.)	Price Specified (%)	Range of Responses (cents/lb)	Observed Price Range* (cents/lb)
Silverside	32	14	44	35-80	50–67
Mince	31	25	81	34-65	35-60
Sirloin	27	16	59	40-70	52-80
Topside	26	15	58	40-68	50-63
Gravy beef	26	21	81	38-75	42-50
Shin	23	8	35	30-45	22-48
Brisket	16	6	38	38-60	41-64
Wing rib	10	3	30	60–70	50-64
Prime ribs	7	. 6	86	43-75	39-63
Blade/bolar	4	3	75	55-65	56-60
Totals	202	117	58		

<sup>\*</sup>See Appendix C for details of retail prices observed at time of survey.

TABLE 5(a)

#### ABILITY TO SPECIFY PRICE : BY AGE OF RESPONDENT

Age	No. of Respondents	Total Cuts		Price S	Speficied
					70
Under 35	13	57	100	32	56
35–49	13	75	100	46	61
50 and over	12	70	100	39	56
Totals	38	202	100	117	58

#### TABLE 5(b)

#### ABILITY TO SPECIFY PRICE: BY FREQUENCY OF PURCHASE

Frequency of Purchase	Total Cuts		Price S	Specified
	No.	%	No.	%
Cut purchased frequently	84	100	56	67
Cut purchased infrequently	118	100	61	52
Totals	202	100	117	58

TABLE 6

#### METHOD OF COOKING SPECIFIED CUTS

Q.1.3 If cut ever bought "How do you normally cook it?"

			Cooking Method							
Cut	No. of Respond- ents	Roast	Pot Roast	Boil	Braise/ Casser- ole	Stew/ Curry	Soup	Pet Food	Other	Total
Silverside1/	32	_	2	32	_	_	-			34
Mince	31	-	-	6	14	23	-	· <u>-</u>	69 <sup>2</sup> /	112
Sirloin	27	25	5	2	_	-	-	-	-	32
Topside	26	17	. 8	1	8	2	-		-	36
Gravy beef	26	-	-	1	7	16	5	13	1	43
Shin	23	-	-	,1	1	10	17	2	<sub>5</sub> 3/	36
Brisket1/	16	1	2	15	-	· · -	-	-	-	18
Wing rib	10	1	-	-	-		-	. <b>-</b>	-	11
Prime ribs	7	7	-	_	-	-	, <b>-</b>	-	-	8
Blade/bolar	4	_	4	_	2	2		-	<u></u>	8

- $\underline{1}/.$  Three respondents, two of whom buy beef by the side, bought uncorned silverside and brisket.
- 2/. The large number of 'other' uses of mince comprised the following:

Rissoles	16
Hamburgers	12
Meat loaf	12
Meat pies	9
Meat balls (bolognaise)	6
Shepherd's Pie/cottage pie	5
Chinese meals	5
Spring rolls	2
Stuffed marrow	_ 2
	69

3/. All 'other' uses of shin were in making potted, jellied or pressed meat.

TABLE 6(a)

# METHOD OF COOKING GRAVY BEEF: BY AGE OF RESPONDENT AND FREQUENCY OF PURCHASE

Cooking Method	All Users	Under 35	35–49	50 & over		of Purchase Infrequent
Stewing	17	3	6	8	4	. 13
Pet food	13	5	6	2	8	5
Braise/casserole	7	2	2	3	1	6
Soup stock	5	1	1	3	1 :	4
Fry	1	1	• -	-	-	1 .
No. of Respondents	26	6	11	9	11	15

TABLE 6(b)

## METHOD OF COOKING TOPSIDE : BY AGE OF RESPONDENT AND FREQUENCY OF PURCHASE

Cooking Method	All Users	Under 35	35-49	50 & over		of Purchase Infrequent
Roast	17	4	7	6	7	10
Pot roast	8	1	3	4	5	3
Braise/casserole	8	-	7	1	6	2
Stew/boil .	3	2	, 1	-	1	2
No. of Respondents	26	5	12	9	10	13

#### LOCATION OF CUTS WITHIN THE CARCASS

Q.1.4 "Now, could you show me on this diagram which part of the carcass ................. (cut) comes from?"

Cut	No. of Users	No. Att	empting cate	Correct	Location
		No.	%	No.	%
Silverside	32	13	41	8	62
Sirloin	27	16	59	9	56
Topside	26	10	38	6	60
Shin	23	17	74	8	47
Brisket	16	8	50	1	13
Wing rib	10	5	50	3	60
Prime ribs	7	4	57	. 2	50
Blade/bolar	4	-	, <u>-</u> '	<b>-</b>	· _
Totals	145	73	50	42	51

#### TABLE 7(a)

### LOCATION OF CUTS WITHIN CARCASS: BY AGE OF RESPONDENTS

Age	No. of Respond- ents	Total No. of Cuts Used	No. Attempting to Locate		Correct Location		
			No.	%	No.	%	
Under 35	13	40	12	30	4	33	
35-49	13	53	30	57	13	43	
50 and over	12	52	31	60	20	65	
Totals	38	145	73	50	37	51	

#### QUALITIES SOUGHT IN GRILLING STEAKS

Q.2.1 "What do you consider makes a steak especially suitable for grilling?"

		No. of Respondents
	Doesn't normally grill steaks	7
•	Buys on reputation of cut (traditional association of name/recommendation/buys expensive cut)	13
	buys expensive out,	
	Identifiable characteristic sought	
	Adequate fat cover ("some fat but not too much")	10
. :	Minimum fat cover ("as little fat as possible")	7
	Absence of gristle, connective tissue, or bone	4
	Marbling	4
	Cut thick	1
	Cut thin	1
	"Not dry looking"	1
	"Nice red colour"	1
	Total	<del></del> 29
	Total	<del></del>
	Eating qualities sought	
	Tenderness*	18
	Flavour*	11
	Juiciness	12
	Leanness	7
	Total	48
	10021	
	TOTAL NO. OF RESPONDENTS GRILLING STEAKS	31
	TOTAL NO. OF RESTORDENTS STREETS STREETS	

\*Sixteen (16) respondents who gave both tenderness and flavour as desired qualities were asked which of these they considered the more important.

<sup>10</sup> rated tenderness as more important.

<sup>6</sup> rated flavour as more important.

#### QUALITIES SOUGHT IN FRYING STEAKS

Q.2.5 "What do you consider makes a steak especially suitable for frying?"

	No. of
	Respondents
Doesn't normally fry steaks	20
Buys on reputation of cut (traditional association of name/recommendation)	on) 5
Identifiable characteristic sought	
Adequate fat cover ("some fat but not too much")	8
Minimum fat cover ("as little fat as possible")	3
Absence of gristle, connective tissue, or bone	3
Marbling	1
Cut chick	,1
Cut thin	1 1
Total	17
	. —
Walting on little a small	
Eating qualities sought	
Tenderness*	18
Flavour*	12
Juiciness	5
Leanness	3
Total	38
TOTAL NO. OF RESPONDENTS FRYING STEAKS	18

<sup>\*</sup>Ten (10) respondents who gave both tenderness and flavour as desired qualities were asked which of these they considered more important.

<sup>6</sup> rated tenderness as more important.

<sup>4</sup> rated flavour as more important.

#### QUALITIES SOUGHT IN BRAISING STEAKS

Q.2.9 "What do you consider makes a steak especially suitable for braising?"

	No. of Respondents
Doesn't normally braise steaks	
Acceptable way of cooking cheaper/tougher steaks	13
Traditional use of cut	5
Identifiable characteristics sought	
Firm even texture	8
Minimum fat cover	7
No gristle or connective tissue	4
Cartilage (in blade steak) acceptable	3
Cut thick	1
Must be aged	1
Total	24
Eating qualities sought	
Flavour	8
Tenderness	7
Leanness	7
Juiciness	5
Thick, dark gravy	4
Total	33
TOTAL NO. OF RESPONDENTS BRAISING STEAKS	. 31

#### QUALITIES SOUGHT IN STEWING STEAKS

Q.2.13 "What do you consider makes a steak especially suitable for stewing?"

		No. of Respondents
Doesn't normally stew steaks	<b>4</b> • • • • • • • • • • • • • • • • • • •	7
Acceptable way of cooking cheape tougher steaks	<b>r</b> /	10
Traditional use of cut/recommend	ation	3.
	•	v • - 4
Identifiable characteristics sou	ght	e Securit
Minimum fat cover	•	8
Absence of gristle, connective t	issue	4
Firm, even texture		2
	Total	14
Eating qualities sought	•	
Flavour		11
Leanness	£1	8
Thick, dark gravy	* *** **	6 :
Tenderness	*	5
Juiciness		2
	Total	32

TOTAL NO. OF RESPONDENTS STEWING STEAKS

31

#### SUMMARY OF QUALITIES SOUGHT IN GRILLING, FRYING, BRAISING AND STEWING STEAKS

TABLE 11

sider makes a steak able forthgwogngo"tilauQ	do you cor ially suit	jady" () Cookin espec	g Method	
re ov		Frying	Braising %	Stewing %
Buys according to reputation or price of steak	42	82 ly stew st	85 Laman J <sup>a</sup> ns	<b>42</b> 2900
Identifiable characteristics	regaodo g	of cookin	sptable way	Acce
Adequate fat cover	32	44 <sup>3</sup> / <sub>1</sub> 2	congher ste	_
Minimum fat cover	raba23mooo	r\tuq710 e	su lagoidil	<sup>эвтТ</sup> 26
Marbling	13	6	-	_
Absence of gristle, etc.	luuoq <sub>3</sub> eoiti	nara <del>c</del> teria	<u>stifighte el</u>	19bI
Texture 8	_	_ nev	00 126 mumi	o Min
Thickness <sup>‡</sup> sus	ective tis		once of gri	Abse
Colour S	3	_errut	, even tex	Tir
Other is later	3	-	3	-
Eating qualities	•			
Tenderness	58	## <b>100</b> e as	iri/ <b>23</b> p 20	#e <b>I</b> 16
Flavour	54	67	voer 65	rs[35
Juiciness 8	39	28	mess <b>61</b>	6 Lear
Leanness &	23	17. yva	:k, d <b>82</b> k gr	ii/126
Gravy ?	-	-	lerne E.f	<b>ef</b> Tenc
Base: (Respondents using specified cooking method)	31 (=100%)	18(=100%)	(%001=) 16	

#### TABLE 12(a)

ìξ

INCIDENCE OF FRYING AND/OR GRILLING:
BY AGE OF RESPONDENT

Cooking Method Used		Age of Respondent					
Cooking Method Used	Under 35	35 - 49	50 & over	Total			
Doesn't normally grill	6 .	1	_	7			
Fries and grills	3	6 .	2	11			
Doesn't normally fry	4	6	10	20			
Total	13	13	1.2	38			

TABLE 13

#### STEAKS USED FOR SPECIFIED COOKING METHODS

Q's. 2.2, 2.6, 2.10, 2.14: "What steaks do <u>you</u> normally use for grilling, frying, braising, making stews?"

Steak	Grillin		Fry No.	ying %	Bra No.	ising %	Stew No.	ring %	Total No.	Users %
Rump	20	65	16	89	6	19	_	-	30	79
T-bone	5.	16	, <del>, ,</del> ,	_	<del></del>	<u> </u>	-	_	5.	13
Sirloin	3	10	2	11	_	_	-	_	3	8
Porterhouse	20	65	14	78	2	6	_	-	26	68
Fillet	21	68	12	67	; <b>-</b>	-	- ,,	· · ·	23	61
Eye fillet	2	6	2	11,	, <del>-</del> .	, . <del></del> .		<del></del>	4	11
Undercut	5	16	1	6	_	_	-		5	13
Topside	1	3	1	, 6	11	35	3	10	14	37
Cross cut blade	3	10	_	-	. 4	13	1	3 ·	7: 7:	18
Blade	-	_	-	-	17	<b>55</b> .5	10	32	17	45
Chuck	-	_	1	6	5	16	6 -	19	10	26
Skirt	-	_	-	· - ,	5	16	7	23	11	29
Thick skirt		_	-		2	6	_	· ·	2	5
Flank		_	_	_	1	3	· ·		1	. 3
Shin	<b>-</b> '	·	-	-	· _	_	2	6	2	5
Gravy beef	-	_	-	-	· _		5	16	5	13
"Beef steak"	_	_	_	_	_	_	3	10	3	. 8
"Steak and kidney"	_	· ·	_	· · · · _		· -	2	6	2	5
"Frying steak"	_	_	1	6	· · -	_	<b>-</b> ,.	–	1	3
"Braising steak"	<u>_</u>	_	_	_	7	23	<u></u>	_	7	18
"Stewing steak"	-	-		·	3	10	20	65	20	53
Base (Respondents using Specified Cooking Methods)	31 (=100%	%)	18(=	100%)	31 (	=100%)	31 (=	100%)	38(=	:100%)
Average No. of Steaks per User	2.58		2	2.78		2.03	1	.90	5	5.21

TABLE 13(a)

#### STEAKS USED: BY AGE OF RESPONDENT

Steak		Age of Respondent							
steak	Unde	Under 35 35 - 49		50 8	over	Tot	al		
	No.	%	No.	%	No.	%	No.	%	
Rump	11	85	10	77	9	<b>7</b> 5	30	<b>7</b> 9	
T-Bone	2	15	2	15	1	8	5	13	
Sirloin/Porterhouse	12	92	10	77	7	58	29	76	
Fillet/eye fillet/undercut	10	77	10	77	12	100	32	84	
Topside	4	31	7	54	3	25	14	37	
Blade/cross cut blade	10	77	9	69	5	42	24	63	
Skirt/thick skirt	2	15	5	38	6	50	13	34	
Chuck	3	23	4	31	3	25	10	26	
Flank	-		1	8	-		1	3	
Unspecified ("stewing steak" etc.)	9	69	11	85	12	100	32	84	
Shin-gravy beef	1	8	4	31	2	17	7	18	
Base (All Respondents)	13(=1	13(=100%)		00%)	12(=100%)		38(=100%)		
Average No. of Steaks per User	4.	92	5.	62	5.	.08	5.	18	

TABLE 14

#### EXPECTED PRICE FOR STEAK USED

Q's. 1.3, 2.7, 2.11, 2.15 "How much do you expect to pay for .....?" REPEAT FOR EACH STEAK USED.

Steak	No. of Users	Price	Specified %	Range of Responses (cents)	Observed Range (cents)
Rump	30	21	70	65 <b>–</b> 100	65–81
T-Bone	5	1	20	68	55 <b>–</b> 80
Sirloin	3	1	33	80 )	70–91
Porterhouse	26	18	69	60 <b>–</b> 95 )	10 /.
Fillet	23	16	70	68 <b>–</b> 90 )	80–110
Eye fillet	4	3	75	70–110)	00-110
Undercut	5	4	80	40-70	70-85
Topside	14	9	64	45-70	50-64
Crosscut blade	7	6	. 86	50-64	50-66
Blade	17	13	76	40-65	50-63
Chuck	10	. 8	80	40-62	48-60
Skirt	11	7	64	45 <b>-</b> 75	45 <b>–</b> 63
Thick skirt	2	2	100	45-60	
Flank	1	-	-	-	-
Totals	158	109	69	·	

TABLE 14(a)

#### WHETHER OR NOT PRICE SPECIFIED : BY AGE OF RESPONDENT

Age	No. of Respond- ents	Total No. of Steaks Used	No.of Times Price Specified	Percentage Specifying Price
Under 35	. 13	54	44	81
35 - 49	13	58	37	64
50 and over	12	46	28	44
Totals	38	158	109	69

TABLE 15

#### LOCATION OF STEAKS WITHIN CARCASS

Q's. 2.4, 2.8, 2.12, 2.6 "Could you tell me (or show me on this diagram) what part of the carcass each of these steaks comes from?"

Steak	No. of Users	Users Attempting to Locate		Correct	Location
		No.	%	No.	%
Rump	30	10	33	<b>-</b>	-
T-Bone	. 5	2	40	. 1	50
Sirloin	3	1	33	1	100
Porterhouse	26	7 .	27	5	71
Fillet/eye fillet	27	9	33	6	67
Undercut	5	1	20	1	100
Crosscut/blade	24	6	25	3	50
Chuck	10	2	20	_	<del></del>
Skirt/thick skirt	13	4	31	3	75
Flank	1	-	-	-	
Totals	143	42	29	20	48

#### MARKET RESEARCH CENTRE PUBLICATIONS

#### Commodity Reports

No. 1. R.W. Cartwright: Projections of Requirements for New Dairy Export Outlets 1970/71-1977/78, August 1971.

#### Consumer Research Reports\*

No. 1. P.A. Dover: A Consumer Study of the New Zealand Market for Whole Milk and Whole Milk Substitutes, March 1971.

No. 2. J.R. McComish: A Pilot Study of Consumer Selection and Usage of Beef Cuts in Palmerston North, October 1971.

\* This series, originally entitled Market Information Surveys, has been renamed to draw a clearer distinction between macro-economic studies (Commodity Reports) and those studies concerned primarily with consumer behaviour. This distinction will be reflected in the classification of future publications.

Copies of the above publications are available on request from:

Market Research Centre Massey University, PALMERSTON NORTH.