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BEEF PREFERENCES *and* PURCHASING PRACTICES



**AGRICULTURAL EXPERIMENT STATION
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CONTENTS

	<i>Page</i>
SAMPLE CHARACTERISTICS.....	3
Who Were The Consumers Studied?.....	3
GENERAL SHOPPING HABITS.....	4
How and Where Did Consumers Shop for Food?.....	4
How and Where Did Consumers Buy Meat?.....	4
What Kind of Meat Did Consumers Buy?.....	5
What Kind of Beef Did Consumers Buy?.....	5
Knowledge of Meat Grades.....	6
Choices of Beef Grades from Color Photographs.....	6
What Does U.S. Inspected and Passed Mean?.....	7
Advertising.....	7
BEEF PREFERENCES.....	7
What Meat Was Liked Best?.....	7
Why Was Beef Served?.....	7
Was Time of Preparation A Factor in Beef Selection?.....	8
What Kind of Beef Was Liked Best?.....	8
What Kind of Beef Was Served Most Often?.....	8
What Kind of Beef Was Purchased Last?.....	8
What Was Liked about The Last Beef Purchased?.....	9
What Beef Cut Was Purchased to Roast?.....	9
How Was A Good Roast Determined?.....	9
What Cut of Steak Was Purchased?.....	9
How Was A Good Steak Determined?.....	9
Were Leftovers Planned?.....	10
How Was Beef Usually Prepared?.....	10
SUMMARY.....	10
Consumer Shopping Habits.....	10
Beef Preferences.....	11
CONCLUSIONS.....	12
APPENDIX I.....	13
APPENDIX II.....	14

Beef Preferences and Purchasing Practices*

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LIVESTOCK production is becoming more important each year in the agricultural economy of Alabama. As Alabama farmers become more and more dependent on livestock production, what they produce must be acceptable to consumers if a stable livestock economy is to be developed and maintained.

Farmers as well as livestock buyers, meat packers, distributors, and retailers should know the basis for consumer decisions in buying meat products. The effects of frozen foods, advertising, self-service, and other changes in retailing methods must be evaluated.

This report presents results of a study made to determine buying practices, opinions, and preferences of a selected group of consumers toward beef and beef products.

SAMPLE CHARACTERISTICS

Who were the consumers studied?

The information contained in this report applies specifically to hourly wage earners in a selected Alabama mill town. Conclusions drawn, however, would be applicable to similar employee groups in Alabama and the Southeast. Hourly wage earners were

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used in this study in an attempt to eliminate variation normally caused by the income factor. Sample characteristics are presented in detail in Appendix I.

Most respondents included in this study lived in rental housing provided by the employer. Over half of the family heads were between 30 and 50 years of age. About one-fifth were over 50 and about one-fifth were under 30. Families of 2 or more persons made up 94 per cent of the sample. Ninety-two per cent of the men and 87 per cent of the women did not complete high school. Two out of 5 families had total incomes after taxes of more than \$5,000. In all cases of incomes above \$5,000, there were two wage earners in the family. Three out of 5 women were employed. Almost half of the families spent \$25 or more per week for groceries, including milk.

Automobiles and television sets were owned by 82 and 91 per cent, respectively. In the 55 families interviewed, there were 125 adults and 92 other family members under 18 years of age. The average number of persons per family was 3.94.

GENERAL SHOPPING HABITS

How and where did consumers shop for food?

Four out of 5 respondents indicated they shopped in person. Others used the telephone or sent someone to the store. About 4 out of 10 used a shopping list. Most housewives traded at large chain supermarkets. The weekly shopping trip appeared to be a well-established habit since 4 out of 5 bought groceries weekly. Generally, the trip was scheduled sometime during the latter part of the week. Fourteen per cent stated they made two shopping trips each week, while 6 per cent shopped daily. Four out of 5 shoppers paid cash for food. Only 1 out of 10 shoppers reported a home freezer or locker.

How and where did consumers buy meat?

Three out of 5 respondents indicated that most of their meats were purchased at chain stores. About 1 in 10 used the local "supermarket," while one-fourth used small local stores.

When asked why they purchased meat in a particular store 43 per cent indicated that prices were cheaper at that store. This contradicts to a degree the statements by some respondents that prices had no effect on their purchases. About 1 in 5 bought meat at a particular store because all other groceries were pur-

chased there. About 1 out of 5 selected a store because its meat was fresh. Other reasons given for selecting a particular store were delivery service and "butcher" service.

Four out of 5 housewives said they made their own beef selections. One in 10 wanted the butcher to help them select their meat. Most shoppers bought where meat was sold on a self-service basis.

What kind of meat did consumers buy?

Pork was the most popular meat purchased during the period of this study, accounting for a third of the individual meat items purchased and 40 per cent of the total pounds bought, Table 1.

TABLE 1. KINDS OF MEAT PURCHASED BY SELECTED HOURLY WAGE EARNERS, AS A PERCENTAGE OF ALL MEATS, BY MEAT ITEMS AND POUNDS, FOR A WEEKLY SHOPPING PERIOD, 1957

	Number of items	Number of pounds
	<i>Per cent</i>	<i>Per cent</i>
Pork	33	40
Beef	24	24
Chicken	11	20
Table-ready	29	15
Other	3	1
All meats	100	100

The more frequent use of pork can be explained in part by its traditional position as a breakfast meat. Almost one-fourth of all meat purchases was beef, both in terms of individual items and pounds of meat. About 1 out of 10 meat items bought was chicken, but these purchases accounted for one-fifth of the pounds of total meat. Purchases of table-ready meats, 29 per cent of all meat items, were exceeded only by those of pork. Table-ready meats, in terms of pounds, comprised 16 per cent of the total. This poundage, of course, had no waste as contrasted with much of the pork, beef, and chicken. Popularity of table-ready meats is partly a result of the desire for lean meat, but it is also influenced by the number of families with both husband and wife working. It indicates a trend in meat buying as additional housewives seek employment outside the home. Purchases of fish by these respondents were relatively unimportant.

What kind of beef did consumers buy?

The percentage of respondents that had recently (within 2 weeks) purchased various beef items is a good measure of usual

beef shopping habits of the hourly wage earner families included in this study. Kinds of beef purchased most recently were:

<i>Beef</i>	<i>Percentage of respondents</i>
Hamburger	92
Cubed steak	72
Stew beef	66
Round steak	60
Chuck roast	54
Bologna	54

Housewives were aware of the great variety of beef cuts available and most made an effort to vary the meals of their families by serving various cuts of beef. Apparently certain basic beef items such as hamburger, stew beef, round and cubed steak, bologna, and chuck roast were served regularly. Beef cuts infrequently served were beef liver, T-bone steak, rump roast, sirloin steak, and rib steak. Other beef items were seldom purchased.

Knowledge of meat grades

When asked to name the "government" grades for beef, most housewives gave answers that indicated they had little or no knowledge of official livestock and meat grades used by the U. S. Department of Agriculture. Such answers as Number 1, or Grade A were common. These housewives were not familiar with meat grades nor with quality factors used in determining grades.

Choices of beef grades from color photographs

Respondents were shown unidentified color pictures¹ of three grades of meat, U. S. Choice, U. S. Good, and U. S. Commercial. When asked to choose the one they would buy if all were the same price, about half chose U. S. Good. U. S. Commercial was selected by about two-fifths, and less than 1 in 10 picked the top quality, U. S. Choice.

About half selected U. S. Commercial as their second choice and one-third considered U. S. Good as second choice. Over three-fourths of those interviewed gave U. S. Choice as their last choice. It should be emphasized here that these selections are indicators only. It is doubtful that shoppers can make these choices in food stores at present.

Three-fifths of those who picked U. S. Good as their first choice did so on the basis of color. About one-third selected U. S. Good because of the amount of fat. Of those respondents who chose

¹ Color pictures used were 8 x 10 inch official U.S. Department of Agriculture photographs of the rib-eye section of beef carcasses.

U. S. Commercial first, about 7 out of 10 did so because of the small amount of fat. More than 90 per cent of those who placed U. S. Choice third considered this grade less desirable than the other two grades because of too much fat.

What does U. S. Inspected and Passed mean?

Almost half of the housewives in the sample associated the stamp U. S. Inspected and Passed with meat that was wholesome. However, about a third of those interviewed either had never seen the stamp or had no idea as to its meaning. About one-fifth confused it with the grade stamp or misinterpreted the stamp in some other way.

Advertising

None of the respondents indicated that they followed advertisements in buying meats of a particular brand. Advertisements featuring special meats with such labels as "Grade A Western Beef" and "Today's Special Heavy Western Beef" were followed only when consumers felt there was some price advantage. Meat advertising, therefore, was useful to respondents only with regard to price information.

BEEF PREFERENCES

What meat was liked best?

Housewives were asked to name the meat that their families liked best. About half chose beef. One out of 5 selected chicken. Fresh pork and cured pork were each chosen by about 1 out of 10 as the family's favorite meat. These preferences were somewhat different from actual purchases, but it is probable that meat preferences were given for main meal choices only.

Why was beef served?

Disregarding the fact that people liked beef, most served beef to their families either because they wanted variation in their meat diet or they considered beef to be better for their health than other meats. Sixty-eight per cent of this sample said they served beef for one or more reasons related to variation in meat diets or for apparent health reasons.

Beef was not considered a "prestige" meat by these respondents, see Appendix II. Chicken was selected by more respondents in one instance and steak by more respondents in another instance than any other meat when guests were to be served. For the

family Sunday dinner, chicken was the most popular choice of meat.

Was time of preparation a factor in beef selection?

These respondents did not regard beef critically when time of preparation had to be brief. In one example described in which the wife worked outside the home all day, more respondents chose steak than any other meat. Where time was a critical factor because of small children, hamburger was the most popular choice, Appendix II.

What kind of beef was liked best?

In reply to a question concerning which beef cut was liked best in their home, steak was by far the most popular. Almost half selected it as their favorite. Ground beef and/or hamburger, the next most popular cuts, were chosen by 22 per cent. Beef roast was the first choice of 18 per cent of those interviewed. Other cuts were preferred by the remaining 15 per cent.

What kind of beef was served most often?

While steak was apparently preferred, ground beef was served most often. About half of the housewives served hamburger or ground beef most frequently. Steak and roast were served most often by 28 and 16 per cent, respectively. Other beef items were more frequently served by about 7 per cent. Four per cent did not answer this question. It appears that families preferred the more expensive cuts but served inexpensive cuts most often.

What kind of beef was purchased last?

Steak was remembered as the last cut of beef purchased by 3 out of 5 housewives. In most instances, round and cubed steak were the cuts recalled. Ground beef, though served most often, apparently was not considered a beef cut by most housewives. Only 4 per cent listed this cut as the last one bought. About one-fourth of the housewives gave beef roast as the last cut purchased.

When asked why they had purchased this particular cut of meat, most housewives gave some reason why they purchased the type of meat rather than the particular cut. Habit was mentioned by 20 per cent. Family preference and price were each cited by 13 per cent. Various physical characteristics were given by 14 per cent. Other reasons ranged from having company to having false teeth. These housewives were not consistent in their reasons for buying beef from week to week.

What was liked about the last beef purchased?

Color of meat was evidently the most impressive feature about beef purchased. Two out of 5 chose beef primarily on the basis of color. About 1 out of 4 bought principally on the basis of absence of fat. One out of 7 bought on the basis of absence of bone. Almost half indicated that a combination of these factors influenced their decision to buy. It should be of interest to people who sell beef that maturity (except as indicated by color) apparently was not a factor in the beef buying habits of these consumers.

Eighty-five per cent replied that they would buy the same cut again. This indicated fairly high consumer satisfaction with the meat they had purchased.

What beef cut was purchased to roast?

Roasting, though not the preferred method of cooking, was still popular. Chuck roast was given as the most popular cut for roasting by 43 per cent of the respondents. Rump roast was selected by 24 per cent. Rib and other roasts were chosen by 17 per cent. About 1 out of 6 respondents did not report buying a roast.

How was a good roast determined?

Housewives bought roasts frequently, yet half said they could not tell that a roast was good until after it was cooked. Factors used to judge roast quality included amount of bone, amount of fat, and color, in order of importance.

What cut of steak was purchased?

Steak was apparently bought on the basis of ease of preparation. Round steak, normally cubed, was the choice of 4 out of 5 shoppers. Either sirloin or T-bone steak was chosen by 1 out of 5. Only one shopper did not buy steak.

How was a good steak determined?

Housewives found the problem of selecting a good steak more difficult than that of selecting a good roast. Sixty-two per cent of those interviewed stated they could not be sure a steak would be good at the time they purchased it. The same factors used in judging roast, amount of bone, amount of fat, and color were mentioned. Few housewives used these factors with any degree of confidence.

Were "leftovers" planned?

The purchase of roasts generally means that there will be left-over meat. For most housewives, this was apparently one of the reasons for buying roasts. For about 2 out of 5, however, the prospect of having leftover meat did not appear to be a basic factor in buying roasts.

How was beef usually prepared?

The method of preparing meats gives some idea as to the time spent in their preparation. Steaks were usually fried by 84 per cent of those interviewed. Only 9 per cent normally broiled steak and 7 per cent used various other methods that would tenderize the steak.

The methods of preparing roasts are shown below:

<i>Method</i>	<i>Percentage of respondents</i>
Pressure cook	33
Bake in oven	25
Boil	22
Pot roast	13
Other	7

Hamburger was fried by 71 per cent. Meat loaf was the usual hamburger dish of 18 per cent. Eleven per cent broiled, stewed, or baked hamburger meat. In Appendix II, results are given for a number of described situations for which preparation methods were asked. The results are not greatly different from those indicated above. The choice of frying meats is influenced by time and cooking equipment, but the popularity of pork and chicken and their adaptability to frying methods has influenced beef buying and preparation habits. With roasts these respondents were more interested in speed and tenderness, which pressure cooking makes possible.

With the preference for fried meats, probably it should be expected that almost 9 out of 10 respondents wanted their meat well-done.

SUMMARY

Consumer shopping habits

Most housewives in this sample did their own shopping and made their own meat selections. Two out of 5 housewives bought their meat where they thought it cost less. One-fifth bought meat at the same store they bought all their groceries. Four out of 5 bought all of their meat on the weekly shopping trip.

Pork was the most popular meat, probably because of its use for breakfast, accounting for a third of the meat items purchased. One-fourth of all meat purchases was beef. Twenty-nine per cent of the meat items were table-ready meats, a situation in part influenced by the large number of gainfully working wives. Certain basic beef items such as hamburger, stew beef, round and cubed steak, bologna, and chuck roast were served regularly. Other beef items were used to vary the family meals.

About half of the housewives knew the purpose of the U. S. inspection stamp but very few knew the purpose or meaning of U. S. official meat grades.

From color photographs, about half of the respondents chose U. S. Good over U. S. Choice and U. S. Commercial grades, disregarding price. U. S. Commercial was selected by 2 out of 5 while less than 1 in 10 selected the top quality U. S. Choice as first preference.

Color of meat was the most important reason for selecting U. S. Good. The small amount of fat was mentioned as the reason for selecting U. S. Commercial. U. S. Choice was not chosen primarily because respondents said it was too fat.

Beef preferences

Beef was the preferred meat for about one-half of the families interviewed.

Most of those who served beef did so for one or more reasons related to variation in meat diets or for apparent health reasons. Steak was by far the most popular preferred beef cut. Hamburger or ground beef was the most frequently served beef cut by most households, although steak was "remembered" as the last beef cut bought by 3 out of 5 housewives. Color of meat was the most impressive feature about beef purchased. Chuck was the most popular beef cut for roasting.

Half of the housewives said they could not judge quality of roast before it was cooked. Amount of bone, amount of fat, and color were the guides used in trying to judge roast quality. About 1 out of 6 did not report buying roast.

Round steak, apparently bought because it was easy to prepare, was the steak choice of 4 out of 5 shoppers. Three out of 5 stated they could not be sure a steak was good at the time they purchased it. Quality guides used for steak were the same as for roast but few housewives used these with any degree of confidence.

These housewives were apparently influenced by amount of time required to prepare meats. Steaks were usually fried by 84 per cent. About a third used pressure cookers for roasts. Hamburger was fried by 7 out of 10.

CONCLUSIONS

Most consumers apparently preferred U. S. Good beef over higher grades even at the same prices. This does not necessarily mean that Alabama producers should produce less Choice beef. Probably the demand for Choice beef in Alabama at present exceeds the local supply.

Producers and those in the meat trade should be aware of consumer preferences. Fat beef was not wanted by most consumers. Most of them wanted lean beef with a bright red color and they bought on this basis. Appearance was extremely important, since most shoppers were not able to judge or reliably select good beef. They had relatively large meat bills but generally bought less expensive beef cuts.

Since less than half of those interviewed used a shopping list, undoubtedly many meat-buying decisions were made at the store. It would seem that opportunities for promotion of meats at the store level are considerable. Some form of promotion dealing with meat preparation methods might be in order. Meat preparation by consumers in this study was about the way it has always been done. It is conceivable that better satisfaction with meats, especially beef, might result with less over-cooking and with greater variety in preparation methods.

Because of the importance of table-ready meats to these consumers, merchandisers may wish to consider increasing the number and variety of these kinds of meats to more nearly satisfy current demands.

APPENDIX I

Sample Characteristics:

TABLE 1. NUMBER AND PERCENTAGE OF FAMILY HEADS BY AGE, 55 HOUSEHOLDS IN A SELECTED ALABAMA MILL TOWN, 1957

Age	Number	Per cent
Under 30	11	20
30-39	15	28
40-49	16	29
50-59	9	16
60-69	4	7
Total	55	100

TABLE 2. NUMBER AND PERCENTAGE OF MARRIED AND WIDOWED FEMALE FAMILY HEADS, 55 HOUSEHOLDS IN A SELECTED ALABAMA MILL TOWN, 1957

	Number	Per cent
Married	52	94
Widowed	3	6
Total	55	100

TABLE 3. NUMBER AND PERCENTAGE OF MEN AND WOMEN BY EDUCATION, 55 HOUSEHOLDS IN A SELECTED ALABAMA MILL TOWN, 1957

Year	Men		Women	
	Number	Per cent	Number	Per cent
Attended Grade School	13	25	10	18
Completed Grade School	15	29	16	29
Attended High School	20	38	22	40
Completed High School	2	4	6	11
Attended College	1	2	1	2
Completed College	1	2	0	0
Total	52	100	55	100

TABLE 4. NUMBER AND PERCENTAGE OF FAMILIES BY AMOUNT OF ANNUAL INCOME AFTER TAXES, 55 HOUSEHOLDS IN A SELECTED ALABAMA MILL TOWN, 1957

Family income	Number	Per cent
1001-2000	1	2
2001-3000	4	7
3001-4000	12	22
4001-5000	15	27
5001-and over	23	42
Total	55	100

TABLE 5. NUMBER AND PERCENTAGE OF MEN AND WOMEN EMPLOYED, 55 HOUSEHOLDS IN A SELECTED ALABAMA MILL TOWN, 1957

Item	Employed	
	Number	Per cent
Men	51	98
Women	35	64
Both	31	56

TABLE 6. NUMBER AND PERCENTAGE OF FAMILIES OWNING AUTOMOBILES AND TELEVISION SETS, 55 HOUSEHOLDS IN A SELECTED ALABAMA MILL TOWN, 1957

Item	Number	Per cent
Television	50	91
Automobile	45	82

TABLE 7. NUMBER AND PERCENTAGE OF FAMILIES BY AMOUNT SPENT WEEKLY FOR GROCERIES, 55 HOUSEHOLDS IN A SELECTED ALABAMA MILL TOWN, 1957

Dollars	Number	Per cent
Under 10	1	2
11-15	4	7
16-20	12	22
21-25	13	24
25 and over	25	45
Total	55	100

TABLE 8. NUMBER OF ADULTS AND OTHER FAMILY MEMBERS UNDER 18 YEARS OF AGE, 55 HOUSEHOLDS IN A SELECTED ALABAMA MILL TOWN, 1957

Item	Number
Adults	125
Other family members under 18 years of age	92
Total	217
Average number of persons per family	3.94

APPENDIX II

The following illustrates the attempt made in this study to obtain basic reasons or motivating factors in consumer purchases and preferences with regard to beef and other meats. These examples were derived from answers that respondents were asked to provide by playing roles in described situations. Such "role playing" was intended to induce respondents to give answers they would not likely give in response to direct questions.

One situation involved the meat choices and preparation

methods when out-of-town relatives were asked to be guests. The meat choices were:

<i>Meat choice</i>	<i>Percentage of respondents</i>
Chicken	36
Beef roast	31
Pork roast	14
Other	19
	100

The principal methods of preparing meat most often mentioned for these out-of-town relatives were:

<i>Methods</i>	<i>Percentage of respondents</i>
Would fry chicken	67
Would roast beef in oven	60
Would roast pork in oven	62

Apparently beef was not considered a "prestige" meat by these respondents. In another assumed situation where the invited guests were friends of the respondent, the meat choices were:

<i>Meat choice</i>	<i>Percentage of respondents</i>
Beef steak	34
Chicken	25
Pork	13
Fish	12
Other	16
	100

The preparation methods for invited guests most frequently given were:

<i>Methods</i>	<i>Percentage of respondents</i>
Would fry steak	84
Would fry chicken	79
Would fry fish	100
No dominant method for pork	

For the family Sunday dinner, the respondents were asked to select a "good, low-cost" meat. These choices were:

<i>Meat</i>	<i>Percentage of respondents</i>
Chicken	55
Beef roast	20
Pork	9
Other	16
	100

The preparation methods for the family Sunday dinner most frequently mentioned were:

<i>Methods</i>	<i>Percentage of respondents</i>
Would fry chicken	71
Would pressure cook beef roast	45
Would fry pork	60

For other than ordinary occasions, it was apparent that these respondents were, at least, as likely to select chicken as beef for their meat.

Other situations were posed to determine if time of preparation was important in selecting beef. The first involved a wife working outside the home who had a minimum of time to prepare the evening meal. The respondent's meat choices in this situation were:

<i>Meat</i>	<i>Percentage of respondents</i>
Beef steak	36
Pork	22
Hamburger	16
Chicken	14
Other	12
	100

The preparation methods most frequently mentioned for this working wife were:

<i>Methods</i>	<i>Percentage of respondents</i>
Would fry steak	81
Would fry pork	92
Would fry hamburger	56
Would fry chicken	100

Meat choices for a main dish in a situation involving a busy housewife attending several young children were:

<i>Meat</i>	<i>Percentage of respondents</i>
Hamburger	40
Chicken	20
Pork	11
Beef roast	9
Table-ready meat	7
Other	13
	100

The preparation methods most often suggested in this situation were:

<i>Methods</i>	<i>Percentage of respondents</i>
Would fry hamburger	55
Would fry chicken	100
Would fry pork	83
Would pressure cook beef roast	60

It did not appear that these respondents regarded beef critically when time of preparation had to be brief. In one situation, beef steak was most often selected; in another hamburger was the most popular choice.