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*Retailer and Consumer
Reaction to*

GRADED and BRANDED BEEF

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and
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Bulletin 479

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Retailer and Consumer Reaction to Graded and Branded Beef

By R. C. ASHBY, R. J. WEBB, E. C. HEDLUND, and SLEETER BULL¹

MANY CONSUMERS and even some retailers are unable to judge quality in beef by the appearance of the meat as it is offered for sale. In the past the best that most consumers could do was to find a shop that handled the quality of beef that suited both their taste and their purse and to buy from that shop regularly. However, since more and more retailers are carrying beef that has the quality stamped on it, either according to a Government grade or a packer brand, consumers are slowly learning that by using these grades and brands they will be more successful in selecting the quality they want and in obtaining it time after time.

No information has been available as to how much consumers and retailers knew about these grades and brands and what their opinions were of the two. Such information would be valuable to all who are interested in promoting the sale of beef on the basis of its actual quality—including producers of quality beef, processors whose customers demand graded or branded beef, retailers who wish to guarantee, in so far as possible, beef quality to their customers, and customers who want to be sure of getting regularly the quality of beef that suits their requirements. The Illinois Station, therefore, in 1938 and 1939 carried on a study with four objectives in view: (1) to learn what grades and brands of beef are handled by Illinois retailers; (2) to ascertain retailers' opinions of graded beef and branded beef; (3) to learn what consumers know about beef and on what they base their beef buying; and (4) to determine what may be done to help consumers buy beef to better advantage.

Some studies of consumer preferences in meats have been carried on recently, but they have not been based on beef grades and brands. Such a basis is necessary if the results are to be effectively translated into marketing practices by consumers, by the meat trade, or by producers of livestock.

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IDENTIFICATION OF QUALITY IN BEEF

Three systems of identifying the quality of carcass beef are in general use. One is the Government system, in which a Government grader places on the carcass the official stamp specifying the Government grade. Another is the system of numerical grading adopted by the Institute of American Meat Packers and commonly used by packers in their wholesale coolers; the tags showing the grade are, however, removed before the beef is sold. Besides using the numerical grading system, many packers stamp on their beef various brand or trade names which indicate degrees of quality, the number of brands ranging from one to as many as five per company.

Government Grades

The first market standards for beef, which were set up by the Illinois Station,¹ divided beef into classes on the basis of sex and of age—as steers, heifers, cows, bulls, and stags. The classes were divided into grades on the basis of the probable eating qualities of the beef; these grades were: *Prime, Choice, Good, Medium, Common, Cutter,* and *Canner*. The classes and grades for beef proposed in that publication and their specifications were later adopted by the Government and were used with only minor modifications until July, 1939, when marked changes were made.

Tentative U.S. grades for carcass beef were first issued in June, 1923,² in mimeographed form and were later published in Department Bulletin 1246, "Market Classes and Grades of Dressed Beef," in August, 1924. Federal grading and stamping of beef by official graders in accordance with the official class and grade standards was begun at Chicago in May, 1927.³ The beef grading and stamping service was made permanent July 1, 1928.

In July, 1939,⁴ the U. S. Department of Agriculture issued revised standards for beef. Three important changes were made: (1) class identification was discontinued entirely; (2) the Government grades, as revised, were U.S. Prime, U.S. Choice, U.S. Good, U.S. Commercial, U.S. Utility, U.S. Cutter, and U.S. Canner; and (3) the Prime and Choice grades were specified as available for steers and heifers only.

¹Market classes and grades of meat. L. D. Hall. Ill. Agr. Exp. Sta. Bul. 147. 1910.

²Official United States standards for grades of carcass beef. Service and Regulatory Announcement No. 99, U. S. Dept. Agr. 1926.

³Beef grading and stamping service. Leaflet 67, U. S. Dept. Agr. 1930.

⁴Amendment No. 1 to Service and Regulatory Announcements No. 99, "Official United States Standards for Grades of Carcass Grade." Agricultural Marketing Service, U. S. Dept. Agr. July, 1939.



FIG. 1.—A GOVERNMENT-GRADED BEEF CARCASS

The stamp indicating the U.S. grade runs the length of the carcass and occurs on every major retail cut. The circular stamps have no relation to the grade; they certify that the carcass is from a healthy animal slaughtered under sanitary conditions. (*Photo courtesy Decatur Herald-Review*)

However, since no grader can be sure of the class unless he can see a hindquarter, it is entirely possible that cow loins and ribs might be graded higher than warranted.

In order to grade "Good" or better, the carcass must be from an animal of predominant beef breeding and must carry considerable finish from grain-feeding. Animals of scrub or of dairy breeding or animals fed only pasture and roughage produce carcasses grading "Commercial" or lower.¹

While carcasses of the same grade and class are of similar quality, carcasses of the same grade but of different classes are not necessarily similar. A "Good" steer carcass and a "Good" heifer carcass may be expected to be similar in eating qualities, but meat from a "Good" cow carcass is definitely inferior to that from a "Good" steer or "Good" heifer carcass. Hence the market class as well as the market grade is very important in determining the eating qualities of the beef.

When the Government grading service was made official, the U. S. Department of Agriculture arranged to furnish its own graders² and to stamp the class and grade in indelible ink down the full length of the carcass—for example, "U. S. Choice Steer." This service is furnished only at the request of the packer, and a charge of \$2 an hour is made for the grader's time. Comparatively few packers have used this service on a large scale. The amount of beef graded and stamped by Government graders has increased rapidly in recent years but is still only a small portion of the total production and that portion consists largely of Choice and of Good steer and heifer carcasses.

According to the National Live Stock and Meat Board,³ approximately 603 million pounds of beef were federally graded in 1938; this is equivalent to about 13 percent of the federally inspected beef produced in that year in the United States and an increase of more than 47 percent over 1937. Of the 1938 gradings, 65.5 percent were steer carcasses, 25.3 percent heifer, and 6.8 percent cow. In 1939 the total

¹Effect of pasture on grade of beef. Sleeter Bull, R. R. Snapp, and H. P. Rusk. Ill. Agr. Exp. Sta. Bul. 475. 1941.

²All meat graders regularly employed by the Agricultural Marketing Service are Civil Service employees. Applicants must have at least six years of practical experience in buying, selling, or grading meat in wholesale quantities. Experience gained as a packing-house route salesman, such as a car-route salesman, is not considered. Appointments are made for a probationary period of one year and may be terminated at any time during the year if the employe's services are not entirely satisfactory. The length of the training period will vary, but usually at least six months is required before graders may be assigned to regular beef grading. Since beef grading is the most technical of any of the grading work, only the men who are the most proficient are given the beef-grading assignments. The services of those less proficient can be utilized for the most part in connection with the acceptance of meats on contract.

³National Live Stock and Meat Board, Chicago. Sixteenth Annual Report (1938-39), p. 114.

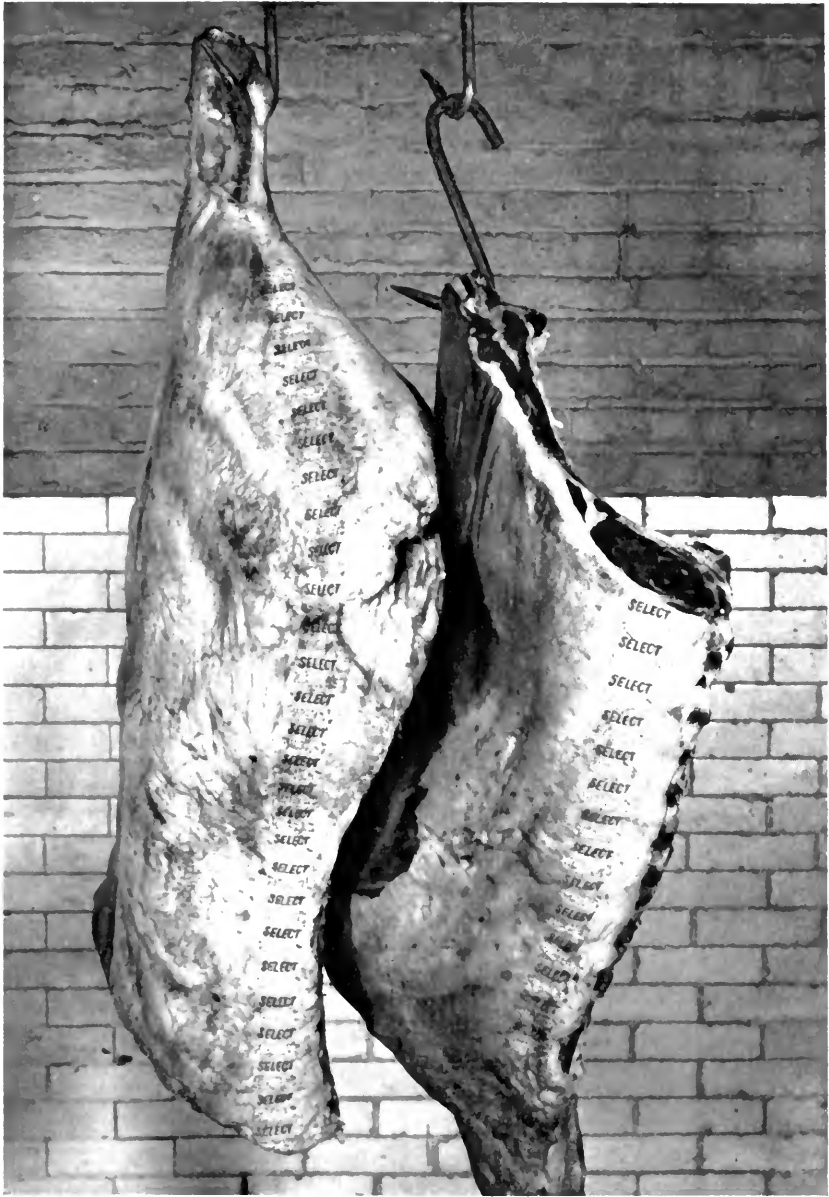


FIG. 2.—BEEF CARCASS CARRYING A PACKER BRAND

Various packers use the word "Select" as a brand name, some reserving it for their best quality of meat, others using it on much lower quality. A consumer must know the company using the brand to understand the quality it is supposed to indicate.

amounts of federally graded beef declined to 512 million pounds, and then increased in 1940 to 578 million pounds.¹

Packer Beef Grades

Claiming that the Government beef grades were too wide (too few in number to meet trade requirements), the meat-packing industry later devised its own system of beef classes and grades. This system, put into effect by the Institute of American Meat Packers in January, 1931, provides for ten grades and gives to each grade a number, using 0 for the top grade and 9 for the lowest grade. A few packers use additional grades or subgrades. This grading is done by employes of the packing company. Under the Institute system the class is designated by a number prefixed to the number indicating the grade, but different packers may use different numbers to represent the class. Thus "31" may mean a Choice steer in one plant but a Choice cow in another. These numbers are not stamped on the beef; they are marked on tags which are hooked to the carcass in the packing plant and are removed before the carcass is delivered to the retailer. Since the retailer and the consumer have no opportunity to know the grade the packer assigned to the beef, this system will not be discussed further in this publication.

Packer Beef Brands

After Government grade-stamping of beef was introduced, many packers instituted the practice of stamping brand or trade names on beef carcasses. This grading is done by packer employes. For their top grade packers frequently used the brand or trade name under which they had been advertising the top grade of their other meats, especially ham and bacon. This brand name was familiar to many consumers and meant a certain quality to them. But as the number of brands used by each packer increased, the average consumer (as well as the retailer) found it more and more difficult to understand what quality of beef each brand was intended to represent.²

The total marketings of branded beef reported by four packers in 1938 amounted to 1,023 million pounds. In 1939 the same four packers reported the sale of 1,110 million pounds of branded beef, and in 1940 they reported 1,173 million pounds.³

The relative advantages to retailers and consumers of Government grading and of packer branding will be discussed later.

¹National Live Stock and Meat Board, Chicago. Nineteenth Annual Report (1940-41), p. 95.

²In January, 1940, one of the large Chicago packing companies announced adoption of a plan by which its beef would carry both the official U.S. grade stamp and the packer's beef brand, the grading and stamping to be done by Government graders.

³National Live Stock and Meat Board, work cited, p. 96.

PART I: THE 1938 RETAILER STUDY

During the summer and early fall of 1938 the authors interviewed 400 Illinois retail meat dealers—223 in Chicago and suburbs¹ (Fig. 3) and 177 in 26 cities and towns outside the Chicago area (Fig. 4). The object was to learn to what extent retailers were handling Government-graded or packer-branded beef, what their experience with each had been, and what their attitude was toward the sale of each. Since

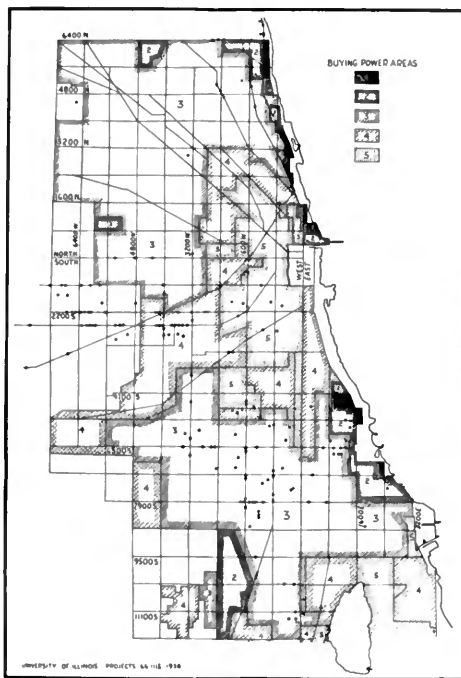


FIG. 3.—LOCATION OF CHICAGO RETAIL MEAT MARKETS INCLUDED IN 1938 STUDY

more beef is consumed in Chicago than in any other part of Illinois, it was decided to start the study there and to extend it downstate later.

The markets in Chicago were classified according to the apparent wealth of the customers in the areas surrounding them, since the income of the consumer directly influences the kind and quality of food

¹Including Berwyn, Cicero, Elmhurst, Evanston, Forest Park, Lyons, River Forest, Riverside, Villa Park, and Wilmette.

he purchases. Use was made of a map, "Distribution of Buying Power in Chicago's 54 Sales Divisions," prepared by the Merchandising Service Department of the *Chicago Evening American* and copyrighted in 1937 by the *Evening American Publishing Company*. Thru the courtesy of the manager of the Merchandising Service Department, their designations of income areas are applied in Fig. 1; No. 1 areas representing "Wealth"; No. 2, "Upper Middle"; No. 3, "Middle"; No. 4, "Lower Middle"; and No. 5, "Low."

The retailers to be interviewed were selected in various ways. For the Chicago study names of representative retailers in different sections of the city were furnished by officers of the retail associations; peddlers

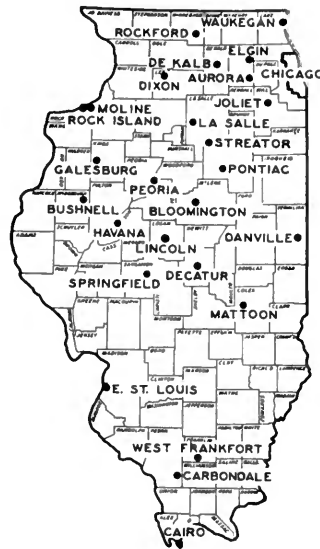


FIG. 4.—CITIES INCLUDED IN 1938 STUDY

supplied names of numerous retailers to whom they sold beef; some names were obtained from managers of some packers' branch houses; some were obtained thru the local office of the Bureau of Agricultural Economics (now the Agricultural Marketing Service) of the U. S. Department of Agriculture; and some shops were visited at random.

Officials of four major chain stores were contacted. One chain reported that it handled no Government-graded or packer-branded beef, two said such beef was handled only incidentally, while the fourth chain featured it. The president of the fourth chain gave the

investigators letters to the managers of its meat departments, directing that they furnish any information requested. Stores of this fourth chain were visited as the investigators found it convenient.

In the downstate study many names of representative retailers were furnished by managers of packers' branch houses and by chambers of commerce. Many shops were chosen at random.

Many Retailers Handled Graded or Branded Beef¹

Interviews with Chicago retailers showed that either graded beef or branded beef or both was available in many markets (Table 1). Nearly 18 percent of the Chicago retailers interviewed handled graded beef

TABLE 1.—PROPORTION OF MARKETS HANDLING GRADED, BRANDED, AND UNSTAMPED BEEF: 1938 STUDY

Kind of beef handled	223 Chicago markets	177 downstate markets	Total (400 markets)
	<i>perct.</i>	<i>perct.</i>	<i>perct.</i>
Graded exclusively	17.9	1.1	10.5
Branded exclusively	6.7	32.2	18.0
Graded and branded	16.6	10.7	14.0
Graded and unstamped	17.5	1.1	10.2
Branded and unstamped	9.0	42.4	23.7
Graded, branded, and unstamped	26.9	10.2	19.5
Unstamped exclusively	5.4	2.3	4.0

exclusively, while less than 7 percent handled only branded beef. About 1 percent of the downstate retailers handled only graded beef, while 32 percent handled branded beef exclusively. Only 5 percent of the Chicago shops and 2 percent of the shops downstate handled neither graded nor branded beef.

Each retailer interviewed was asked what grades and what brands of beef he handled and the approximate percentage that each made up of the shop's total sales (Table 2).

It appeared that most downstate markets depended on packers' first and second brands for their better beef, but in numerous instances beef sold under a packer's first brand downstate was not as good as beef carrying the same brand in Chicago. In shops carrying graded beef much U.S. Choice and U.S. Good was reported handled both in Chicago and downstate.

¹In this bulletin *graded* designates beef on which an official U.S. grade has been stamped by a federal beef grader, *branded* refers to beef on which a packer has imprinted a packer trade name or brand, while *unstamped* refers to beef that is neither grade-stamped nor branded.

TABLE 2.—NUMBER OF RETAILERS HANDLING INDICATED PROPORTIONS OF VARIOUS GRADES AND BRANDS OF BEEF: 1938 STUDY

Grades or brands handled	100 percent		75-99 percent		50-74 percent		25-49 percent		Below 25 percent	
	Chi- cago	Down- state	Chi- cago	Down- state	Chi- cago	Down- state	Chi- cago	Down- state	Chi- cago	Down- state
<i>U.S.</i>										
Prime .....	..	..	..	..	..	..	..	..	7	..
Choice	19	1	32	3	30	2	33	1	28	21
Good	3	1	16	1	18	2	24	4	21	7
Medium* .....	..	..	1	..	..	..	1	..	2	..
<i>Packer brands</i>										
First	7	19	9	26	17	13	31	13	17	13
Second	1	10	9	16	15	26	22	29	17	14
Third	2	6	5	16	5	13	3	16	6	7
Fourth .....	..	2	..	5	..	6	1	5	3	11

*Grade name in official use in 1938.

Large Number of Brands on the Market

In the course of the 1938 study 55 different beef brands marketed by 18 different packing companies were observed.¹ They were the following:

Armour and Company—Star, Quality, Banquet, Armour
Baum Packing Company—Select, Peerless
Cudahy Packing Company—Puritan, Fancy, Thrift, Cudahy
*Decker and Sons (Armour and Company)**—Standard, Decker
DuQuoin Packing Company—Blue Bell, Pyramid, Tip Top, Du Pac
Empire Packing Company—Choice Yearling
G. H. Hammond Company (Swift and Company)—Rosebud, Calumet
Hunter Packing Company—Ace, King, Queen, Hunter
Geo. A. Hormel and Company—Best, Merit, Value, Hormel
Iowa Packing Company (Swift and Company)—Old Homestead, Manor
Margolin Packing Company—Select, Margolin
John Morrell and Company—Pride, Xtra Fine, All Rite
Peoria Packing Company—Aristocrat, Quality Products
Rath Packing Company—Black Hawk, Corn Country, Rath
St. Louis Independent Packing Company (Swift and Company)—Mayrose
 Special, Mayrose, Independent, Norwood
Swift and Company—Premium, Select, Swift, Sanco
Wilson and Company, Inc.—Certified, Special, Ideal, Leader, Wilsco
Wimp Packing Company—Blue Ribbon, Baby Beef, Fancy

(*In parentheses is shown the name of the present owner and operator of the plant, the business often continuing to operate under the name of the original company and to carry its brand names.)

There was considerable variation in the number of beef brands used by the packers both in this survey and in the 1939 Chicago survey (page 359), the number ranging from five different brands for several

¹In an investigation in 1940, an attempt was made to list all brands of beef sold in Illinois; it was found that 22 packers were marketing 77 brands.

of the packers down to but one for some of the small local companies. Companies having only one brand frequently applied their stamp to beef differing widely in quality. Moreover, different companies sometimes used the same brand name but applied it to different qualities of beef. For example, one packer used "Select" for his first brand; another used "Select" for his second brand; and a third, with only one brand, used "Select" as the name and applied it to beef that varied greatly, both in class and in grade.

How Retailers Purchased Beef

Retailers were asked whether they selected their beef personally, bought it by telephone, or depended upon salesmen (Table 3). A large number of the replies in Chicago indicated that personal selection was the usual method of purchasing beef, while downstate almost as many retailers purchased thru salesmen as by personal selection.

TABLE 3.—NUMBER OF RETAILERS PURCHASING BEEF BY PERSONAL SELECTION, BY TELEPHONE, AND FROM SALESMEN: 1938 STUDY

Percent of total beef purchased	Chicago retailers purchasing—			Downstate retailers purchasing—		
	By personal selection	By telephone	From salesmen	By personal selection	By telephone	From salesmen
100.....	95	28	7	54	15	46
75 to 99.....	20	14	2	16	2	14
50 to 74.....	16	15	7	14	8	13
25 to 49.....	11	8	5	13	4	6
Less than 25.....	8	8	4	7	4	11
Total reporting.....	150	73	25	104	33	90

Many retailers in buying by telephone deal with a salesman who knows what they want, so they feel they are getting as good beef as they could get if they selected the beef personally. Those buying from salesmen have the privilege of rejecting the beef if it is not satisfactory upon delivery. However, the retailer who can visit the packers' coolers and see many carcasses and cuts is likely to keep better informed as to what kind of beef is available than those who purchase from salesmen or by telephone. If he knows beef, he can better select the quality that suits his trade. Many downstate retailers, of course, have far less opportunity to select beef in person.

The retailers' methods of selecting beef were analyzed on the basis of the income areas in which their shops were located and no consistent differences were found. In some of the north-shore suburbs, a larger proportion of the retailers personally selected their beef than in the other areas in this study.

TABLE 4.—SOURCES FROM WHICH RETAILERS OBTAINED THEIR SUPPLY OF BEEF: 1938 STUDY

Percent of total beef purchased	Number of retailers obtaining beef from—								Number receiving beef by—			
	Packer wholesale markets		Packer branch houses		Jobbers		Peddlers		Car route		Truck	
	Chi-cago	Down-state	Chi-cago	Down-state	Chi-cago	Down-state	Chi-cago	Down-state	Chi-cago	Down-state	Chi-cago	Down-state
100.....	25	27	15	48	17	2	25	..	..	2	223	30
75 to 99.....	19	2	8	19	12	2	18	1	..	9	..	6
50 to 74.....	19	11	23	11	20	..	11	..	..	3	..	15
25 to 49.....	10	2	9	13	24	2	15	1	..	8	..	8
Below 25.....	3	3	6	6	11	3	15	3	..	7	..	8
Total reporting...	76	45	61	97	84	9	84	5	..	29	223	67

Retailers were asked also to name the sources of their beef supply—that is, the proportions they received from packers' wholesale markets, from packers' branch houses, from jobbers, and from peddlers; they were also asked whether the beef was delivered to them by car route or by truck (Table 4). It was recognized that there was no sharp line between what constituted a jobber and a peddler; one retailer may regard one operator as a jobber, while another retailer may class him as a peddler. The replies indicated that a relatively large proportion of purchases in Chicago was made from packers' wholesale markets and a smaller proportion downstate; a higher proportion of the purchases downstate was made from branch houses; and a surprisingly high volume of purchases by retailers in Chicago was made from jobbers and peddlers. A surprising number of so-called peddlers were active in the fresh-beef business in Chicago, and they were said to handle a considerable volume of business.

TABLE 5.—FORMS IN WHICH RETAILERS PURCHASED GRADED AND BRANDED BEEF: 1938 STUDY

Percent of graded and branded beef purchased in form indicated	Number of Chicago retailers purchasing—			Number of downstate retailers purchasing—		
	Carcasses	Quarters	Wholesale cuts	Carcasses	Quarters	Wholesale cuts
100.....	21	..	21	60	1	8
75 to 99.....	85	4	8	80	2	5
50 to 74.....	41	6	28	15	1	9
25 to 49.....	10	8	43	5	4	20
Below 25.....	4	4	69	1	2	52
Total reporting.....	161	22	169	161	10	94

Most of the retailers said they purchased graded beef and branded beef as carcasses (Table 5). Some retailers, most of them in Chicago, purchased their beef largely as wholesale cuts because they had a highly specialized trade; others bought cuts because of their small volume of business. Relatively little beef was bought as quarters. (Data from the 1939 Decatur survey, page 368, are of interest in connection with these other downstate data.)

More than three-fourths of the retailers reported that all of their customers purchased either graded or branded beef. Naturally the number of those buying such beef would depend in part upon the proportion of stamped beef in the shop.

Income Classes That Bought Graded or Branded Beef

Retailers were asked what income class of customers bought either graded or branded beef, a difficult question to answer but one of definite importance in the sale of quality beef. No suggestions for classifying incomes were given retailers; they were asked the question and they answered it in their own ways. The replies are summarized as follows:

<i>Income group</i>	<i>Chicago</i>	<i>Downstate</i>
Upper ^a	36	65
Upper middle	34	12
Middle ^b	126	80
Lower middle	5	..
Lower	9	..

(^aIncludes those answering *higher, upper, better, above average,* and *quality.* ^bIncludes *middle, average,* and *working people.*)

These data indicate that the demand for Government-graded beef and packer-branded beef is not restricted to the higher-income groups.

The 1938 Chicago schedules were sorted according to the income areas shown in Fig. 1 and were then analyzed to discover the proportions of shops handling graded, branded, and unstamped beef and the proportions handling different grades and different brands of beef (Table 6). The schedules for three Chicago suburban areas were analyzed in a similar way.

As would be expected, the shops carrying the highest proportion of the better grades of beef were in the areas where the consumers had higher incomes. However, when 38 percent of the shops in the low-income areas sell U.S. Choice beef and 50 percent sell U.S. Good, it appears that appreciable numbers of consumers in almost every area will buy quality beef if they can get it. It is recognized that consumers residing in the high-income areas may purchase some beef at shops that are located in lower-income areas if such shops are conveniently located for them.

TABLE 6.—PROPORTION OF SHOPS IN DIFFERENT INCOME AREAS HANDLING GRADED, BRANDED, AND UNSTAMPED BEEF; AND UNSTAMPED BEEF; GRADES AND BRANDS HANDLED: 1938 STUDY

Income area	Number of shops	Shops handling—			Shops handling grades indicated				Shops handling brands indicated			
		Graded beef	Branded beef	Unstamped beef	U.S. Prime	U.S. Choice	U.S. Good	U.S. Medium	First brand	Second brand	Third brand	Fourth brand
1 (wealthy).....	14	percl. 85.7	percl. 92.9	percl. 85.7	percl. 35.7	percl. 64.3	percl. 35.7	percl.	percl. 92.9	percl. 7.1	percl.	percl.
2 (upper middle).....	28	85.7	57.1	57.1	3.6	82.1	35.7	....	39.3	21.4	10.7	....
3 (middle).....	80	75.3	49.4	55.1	1.1	65.2	34.8	1.1	21.3	22.5	12.4	3.4
4 (lower middle).....	32	81.3	68.8	43.8	....	59.4	6.3	6.3	28.1	40.6	15.6	3.1
5 (low).....	13	71.9	38.5	69.2	....	53.8	7.1	....	23.1	23.1	7.7	....
North shore.....	14	71.4	71.4	21.4	7.1	80.0	40.0	....	64.3	42.9	7.1	....
Berwyn.....	20	85.0	65.0	45.0	....	80.0	40.0	....	45.0	45.0	5.0	....
Cicero.....	12	83.3	50.0	66.7	....	50.0	58.3	....	8.3	41.7	8.3	....

*Riverside, Evanston, and Wilmette.

TABLE 7.—RETAILERS' REPLIES TO QUESTIONS CONCERNING CONSUMERS' REQUESTS FOR GRADED AND BRANDED BEEF AND THEIR KNOWLEDGE OF GRADE AND BRAND STAMPS; PERCENTAGE OF RETAILERS THAT TRIM OFF GRADE STAMP: 1938 STUDY

Retailer groups	Q: Do customers ask for graded and branded beef? Retailers replying—			Q: Do customers know meaning of grade and brand stamps? Retailers replying—			Q: Is grade stamp trimmed off before beef is delivered to customers? Retailers replying—		
	Yes	No	No answer	Yes	Few	No	Yes	No	No answer
Chicago.....	percl. 39.0 ^a	percl. 48.4	percl. 12.6	percl. 30.5	percl. 13.4	percl. 41.3	percl. 14.8	percl. 66.4 ^c	percl. 19.3
Downstate.....	42.4 ^d	55.4	2.3	33.3	25.4	39.0	2.3	7.9 ^e	89.3
Both.....	40.5	51.5	8.0	31.7	18.7	40.2	9.2	11.5	76.5

^aReplies include 72 "yes" and 15 "few." ^bReplies include 26 "yes," 3 "usually," and 3 "sometimes." ^cReplies include 147 "no" and 1 "seldom." ^dReplies include 64 "yes" and 11 "few." ^eReplies include 10 "yes," 3 "usually," and 1 "sometimes."

Many Customers Asked for Graded or Branded Beef

In all interviews retailers were asked whether their customers called for graded or branded beef. The data show that about 40 percent of their customers (Table 7) asked for such beef, altho the results of the Decatur consumer survey seem to show that it is doubtful if many of their customers knew enough about graded beef or about beef brands to ask for either with assurance.

The replies of retailers to the question whether customers asked for graded or branded beef were tabulated on the basis of income areas also. The percentage of retailers answering "yes" was much higher in the higher-income areas.

Only about one-third of the retailers said that their customers knew the meaning of the grade and brand stamps (Table 7), an indication that consumers need to be informed about the meaning of government grades and packer brands.

In the first retail shop visited in Chicago, a small independent market, the owner was handling only U.S. Choice beef. But he was cutting off the stamps before the meat was wrapped and was not explaining to his customers what the grade stamp meant or what quality of beef it signified. That the practice of cutting off the grade stamp was fairly common is shown by Table 7. And even tho the butcher does not remove the stamp, it does not follow that consumers will notice it or understand its significance. More information about the meaning and importance of the grade stamp is needed by both consumers and retailers.

Retailers' Knowledge of Wholesale-Beef Prices

The retailers were asked upon what sources they depended for information about wholesale-beef prices. Forty-nine percent of the retailers interviewed in the Chicago area said they depended upon their own judgment,¹ 13 percent made use of the daily wholesale meat market reports of the Bureau of Agricultural Economics,² 5 percent said they depended upon the packers' beef salesmen for price information, and the rest gave various replies such as the radio, the newspapers,³ and "from the trade." Downstate 36 percent of the retailers

¹This word was used by the retailers themselves; it could not have been suggested by the interviewer. The retailers were not asked to explain what they meant by it.

²Now the Agricultural Marketing Service. Daily reports giving wholesale meat market quotations may be obtained free of charge by writing the U. S. Department of Agriculture, 999 Exchange Avenue, Chicago.

³Investigators observed no daily newspapers in the areas studied carrying daily quotations of wholesale-beef prices.

depended upon packer salesmen for their information on wholesale prices, 35 percent depended upon their own judgment, 1.1 percent used the market reports of the Bureau of Agricultural Economics, and the remainder answered in various ways. Numerous retailers said they followed the livestock market.

Some Retailers Bought Too High

Along with the question of the source of the retailers' information about prices, note was made, whenever the information was available, of the price paid for specific cattle¹ on a particular date and of the actual carcass grade. These figures were then compared with the prices listed by the Bureau of Agricultural Economics for carcass beef of similar weight and grade in Chicago on the same date. Ninety-six such comparisons were made in Chicago shops and 48 in downstate shops. In Chicago 8 of the shops purchased below the market price, 15 at the market price, and 73 above. Downstate 1 retailer paid less than the Chicago quotation for his beef, 1 bought at the quotation, and 46 paid more than the quotation. (No prices were available from chain markets.)

It might be thought that shipping charges should be added to the Chicago price quotations, but it was found that shops outside of Chicago purchased beef mostly from plants to the west—Peoria, St. Louis, Waterloo, Ottumwa, Des Moines, Omaha, Kansas City, and others. Such beef should be delivered at prices as low or lower than Chicago quotations.

Altho the differences between the prices that the retailers reported paying and the market quotations on apparently comparable beef² are not exact, they do indicate that some operators of independent markets may pay considerably more than the market price for their beef. Of the 8 Chicago purchases apparently below the quoted market, 5 were 25 to 50 cents less. Of the 73 purchases above the quotations, 37 were 25 to 75 cents high; 29 were \$1 to \$1.25 high, and 7 were \$1.50 to \$2 high. The one downstate purchase below the market price was 50 cents low. Of the 46 purchases above the market price only 10 were \$1 or less above the quotations, 23 were \$1.25 to \$2 high, while 13 were from \$2.25 to \$3 above quotations.

Some retailers paid an excessive price because they unknowingly received a lower-grade carcass than they ordered. Others received the grade they ordered but paid too much because they were not familiar with the market quotations.

¹In the beef trade the term "cattle" refers to a carcass.

²It is recognized that prices vary within grades. This variation was allowed for in making price comparisons.

Dependability of Grading and Branding

Dependability in the grading of any commodity that is purchased frequently or regularly develops the consumer's confidence in the product. Therefore the retailers were questioned about the dependability of quality in graded and branded beef (Table 8).

The replies of the Chicago retailers to this question made clear that they thought Government grading of beef was a more dependable index to the quality of the beef than were packer brands. Nearly 69 percent said Government grading was dependable, and only 3 percent said it was not. Only 17 percent said packer branding was dependable, 40 percent saying it was not.

The only downstate retailers to say that Government grading was not consistent were those handling branded beef exclusively. The fact that three-fourths of the downstate retailers expressed no opinion regarding Government grading shows that many downstate retailers are unacquainted with Government beef grading and Government-graded beef. On the other hand, slightly more than one-third of these downstate retailers said that packer brands were a dependable index to quality, while about the same number said they were not. Even among retailers handling branded beef exclusively, almost as many said that the brands were not a dependable index as said they were.

The same packer brand was often attached to a lower quality of beef downstate than in Chicago, perhaps because branded beef meets less intensive competition downstate or because many of the downstate retailers are less critical or less discriminating than Chicago retailers.

Many dealers commented on the fact that the quality of a given brand tends to be lowered or raised as the available supply of beef for that brand varies. Some packers insist that it is necessary to vary the quality according to the available supply, that the best beef available should be given the top brand even tho the quality of such beef is little or no better than what would carry the second brand under other conditions. There is a definite difference of opinion among packers on this question.

The authors feel that definite standards for each grade or brand should be set up and that these standards should be closely followed by packers. Then if a shortage makes it impossible to furnish enough of any particular grade or brand, the situation should be frankly explained to retailers and consumers, and an available grade or brand that will substitute most satisfactorily should be recommended.

Retailers stressed the facts that Government graders have no financial interest in the beef they grade, that Government grading represents a given quality more consistently and more dependably than

TABLE 8.—RETAILERS' STATEMENTS REGARDING DEPENDABILITY OF GOVERNMENT GRADING AND PACKER BRANDING OF BEEF: 1938 STUDY
(Figures indicate number of retailers replying)

Retailer groups (based on kind of beef handled)	Total	Quality is dependable in—		Quality is fairly dependable in—		Quality is not dependable in—		No opinion	
		Graded beef	Branded beef	Graded beef	Branded beef	Graded beef	Branded beef	Graded beef	Branded beef
<i>Chicago</i>									
Graded beef exclusively.....	69	58	1	8	4	1	28	2	36
Branded beef exclusively.....	27	5	12	..	4	..	10	22	1
Both graded and branded.....	116	88	25	6	20	5	50	17	21
Unstamped exclusively.....	11	2	..	..	..	1	2	8	9
Total replies.....	223	153	38	14	28	7	90	49	67
<i>Downstate</i>									
Graded beef exclusively.....	6	6	2	..	..	..	3	..	1
Branded beef exclusively.....	137	13	57	..	31	4	47	120	7
Both graded and branded.....	30	23	8	..	5	..	17	7	..
Unstamped exclusively.....	4	..	..	..	..	..	..	4	..
Total replies.....	177	42	67	..	36	4	67	131	12

packer branding, and that packers are putting out too many brands. Some of the comments were:

The Government grader is independent . . . Government grading is more honest . . . Be better for everybody if all beef were Government graded . . . Government grading is a help in buying, a protection to the retailer . . . You can buy Government-graded beef safely by telephone . . . Not all Government graders are as well qualified as they should be . . . Make Government grading compulsory and eliminate false advertising of meats . . . There should be just one grading system—there are too many now . . . In the grass season Government grading is not consistent—still grade them Choice even if fat is too yellow and they don't cut right . . . Packer branding should be stopped.

Attitude of Packer Salesmen Toward Graded Beef

Retailers were asked if packer salesmen encouraged them to buy graded beef or to buy branded beef; they were also asked whether a higher price was asked for graded or branded beef than for comparable beef that was unstamped (Table 9).

Only 13 of the 400 retailers said that salesmen encouraged the purchase of graded beef, while 205 said it was not encouraged. On the other hand, 123 retailers said that the purchase of branded beef was encouraged by salesmen and 111 said it was not. In both groups a relatively large number of retailers expressed no opinion. It seems quite clear that packer salesmen have not encouraged the purchase

TABLE 9.—RETAILERS' REPLIES TO QUESTIONS CONCERNING ATTITUDE OF PACKER SALESMEN TOWARD GRADED AND BRANDED BEEF: 1938 STUDY

Retailer groups	Q: Do salesmen encourage purchase of graded beef? Retailers answering—			Q: Is a higher price asked for graded beef? Retailers answering—		
	Yes	No	No opinion	Yes	No	No opinion
	<i>perct.</i>	<i>perct.</i>	<i>perct.</i>	<i>perct.</i>	<i>perct.</i>	<i>perct.</i>
Chicago.....	4.0	32.7	63.2	6.7	34.1	59.2
Downstate.....	2.3	74.6	23.2	4.5	69.5	26.0
Both.....	3.2	51.2	45.5	5.7	49.7	44.5
	Q: Do salesmen encourage purchase of branded beef? Retailers answering—			Q: Is a higher price asked for branded beef? Retailers answering—		
	Yes	No	No opinion	Yes	No	No opinion
	<i>perct.</i>	<i>perct.</i>	<i>perct.</i>	<i>perct.</i>	<i>perct.</i>	<i>perct.</i>
Chicago.....	12.6	25.1	62.3	2.7	35.9	61.4
Downstate.....	53.7	31.1	15.2	4.5	76.8	18.6
Both.....	30.7	27.7	41.5	3.5	54.0	42.5

of graded beef, but that they have actively encouraged the purchase of branded beef.

While 23 retailers said that packers asked a higher price for beef that was Government-graded, 199 said "no," and 178 gave no opinion. Fifteen of the Chicago retailers, who are better acquainted with graded beef than downstate retailers, said that packers asked a higher price for it, while 76 said "no." But only 14 of the entire 400 retailers said that packers asked a higher price for branded beef, while 216 said "no." Several of the retailers were very definitely convinced that it was the policy of packers to ask a higher price for graded beef, possibly to discourage the demand for it.

Shop Practices Bearing on Problems

Is meat cut in advance or as sold? Because beef can be more accurately appraised for grade in sides or quarters than in wholesale cuts, and more accurately appraised in wholesale cuts than in retail cuts, retailers were asked how much of the beef that they sold was cut in advance of sale. The greater part of the shops cut their beef as it was sold. The better the shop and the higher the quality of beef handled, the more generally was this true. Numerous shopmen said their customers would not buy precut beef. In some of the large shops a certain amount of beef is cut before the rush hours to facilitate handling the large volume of business in a limited time.

Are cuts trimmed? Retailers were also asked whether cuts were trimmed or were sold as they fell. Of those in the Chicago area giving a definite reply, more than three times as many shops trimmed moderately or closely as trimmed slightly or not at all; over twice as many downstate shops trimmed moderately or closely as did not. It should be noted that the more retail cuts are trimmed, the higher is their price.

Do customers object to fat? Since fat in beef is a definite indication of quality and since all consumers can distinguish between fat and lean, retailers were asked whether their customers objected to fat in

TABLE 10.—CONSUMERS' OBJECTIONS TO FAT IN BEEF AS REPORTED BY RETAILERS: 1938 STUDY

Retailer groups	Q: Do customers object to fat in beef? Retailers answering—				
	Yes	Half object	Some object	No	No reply
	<i>perct.</i>	<i>perct.</i>	<i>perct.</i>	<i>perct.</i>	<i>perct.</i>
Chicago.....	70.8	.5	17.0	11.2	.5
Downstate.....	47.5	3.9	39.0	8.4	1.1
Both.....	60.5	2.0	26.8	10.0	.8

beef (Table 10). Nearly six times as many retailers said that their customers objected to fat as said they did not.

Many retailers point out to their customers the relation of fat to quality in beef, the difference between mere excessive fat and a balance of marbling and external fat. (Discussion of the attitude of consumers toward fat in beef, presented on pages 383 to 387, is of interest in this connection.)

Retailers Favored Sex Identification of Beef

Retailers were asked whether they favored having the sex of the cattle stamped on beef carcasses. In Chicago 70 percent said "yes," 11 percent said it made no difference to them, 10 percent said "no," and 9 percent said it was not necessary. Downstate 43 percent said "yes," 23 percent thought it was not necessary, 17 percent said it made no difference, and 17 percent said "no." Of the combined groups, 58 percent said "yes," 15 percent said it was not necessary, 14 percent were indifferent, and 13 percent said "no." Six retailers favored having the sex of the cattle stamped on the wholesale cuts, 3 said sex identification was valuable to inexperienced butchers, 1 wanted it on all cattle beyond yearling age, and 1 favored special identification of cow carcasses.

PART II: 1939 CHICAGO STUDY

The retail shops visited in Chicago in the 1938 study were to some extent selected shops, and it was believed that the results of that study should be checked against data obtained from shops that were as nearly as possible a random sample. It was decided to select sections of Chicago that appeared to include the different income areas and to canvass all the retail meat shops in the selected sections.

In deciding what sections of Chicago to use, the assistance of several people was sought, all well acquainted with the city and its retail meat distribution. Among them were representatives of the Chicago office of the Agricultural Marketing Service, U. S. Department of Agriculture (formerly the Bureau of Agricultural Economics), officials of retail meat dealers' associations, and managers of the meat departments of some of the large chain stores. The following sections were selected: on the south side, 55th Street from Cottage Grove Avenue east, and 63d Street from Wentworth Avenue to Ashland Avenue; on the north side, an area around Belmont Avenue and Central Avenue, Bryn Mawr Avenue from Broadway east, and Lincoln Avenue between Lawrence and Southport.

Every retail meat shop operating in the sections selected was visited, and satisfactory interviews were obtained in nearly all.

Executives of four large chains furnished written authorizations

instructing the managers of meat departments in any of their stores to furnish the information requested, and excellent cooperation was usually received from the men in the chain stores visited. Seventy records were obtained in all, distributed as follows: 22 on East 55th Street, 15 on 63d Street, 7 around Belmont and Central, 5 on Bryn

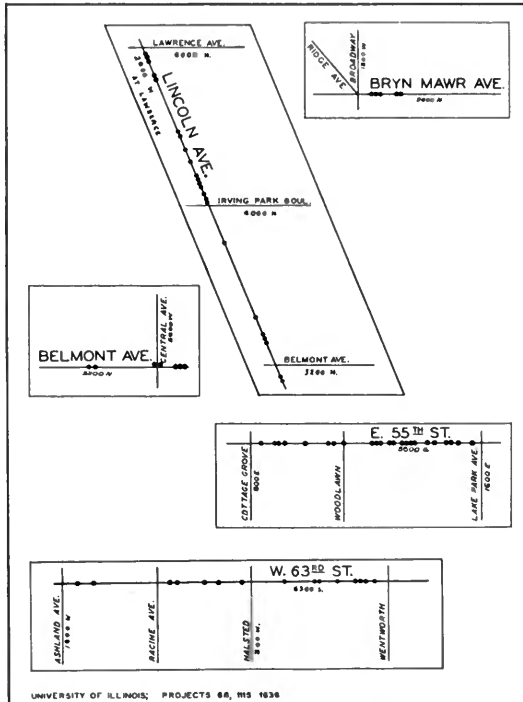


FIG. 5.—LOCATION OF RETAIL MEAT MARKETS INCLUDED IN 1939 CHICAGO STUDY

Mawr Avenue, and 21 on Lincoln Avenue. Locations of the shops are shown in Fig. 5.

Shops Handling Graded or Branded Beef

Operators of 45 of the retail shops reported handling graded beef, 8 said they handled it exclusively, while 25 said they did not handle it. Fifty-five operators said branded beef was handled, 7 exclusively, while 15 shops did not handle it (Table 11).

In many instances the investigator was invited to inspect the meat in the chillroom. In 18 of the shops reporting graded beef the grades

TABLE 11.—NUMBER AND PERCENTAGE OF MARKETS HANDLING GRADED, BRANDED, AND UNSTAMPED BEEF: 1939 CHICAGO STUDY

Kind of beef handled	Number of markets	Percentage of markets
Graded exclusively.....	8	11.4
Branded exclusively.....	7	10.0
Graded and branded.....	21	30.0
Graded and unstamped.....	2	2.9
Branded and unstamped.....	13	18.6
Graded, branded, and unstamped.....	14	20.0
Unstamped exclusively.....	5	7.1

were seen to be as reported by the operators; in 3 others the meat seen by the investigator was one grade lower than the operator reported; in one instance it was two grades lower. In 8 shops no graded beef was in the box altho the butcher had said that it was sold in that shop. In 4 shops graded beef was in the box, but the operator was unable to name any of the official Government grades. In the remaining 13 shops no opportunity was given to inspect the beef.

As mentioned above, 8 of the shops handling graded beef handled it exclusively; in 8 shops 75 to 99 percent of the beef was graded; 14 shops were in the 50-to-74 percent group; 5 shops were in the 25-to-49 percent group; in 8 shops less than 25 percent of the beef was graded; and 4 shops gave no figures. Steer beef was handled by 28 of these shops, heifer beef by 19, and yearling beef by 6.

The operators of three shops reported that they handled U.S. Prime beef; 28 reported U.S. Choice; 19 reported U.S. Good; 2 reported U.S. Commercial¹; and 2 shops had U.S. Choice beef in the box, altho the men in charge were unable to say offhand what grade they handled. Several shops handled two grades such as Good and Choice or Choice and Prime.

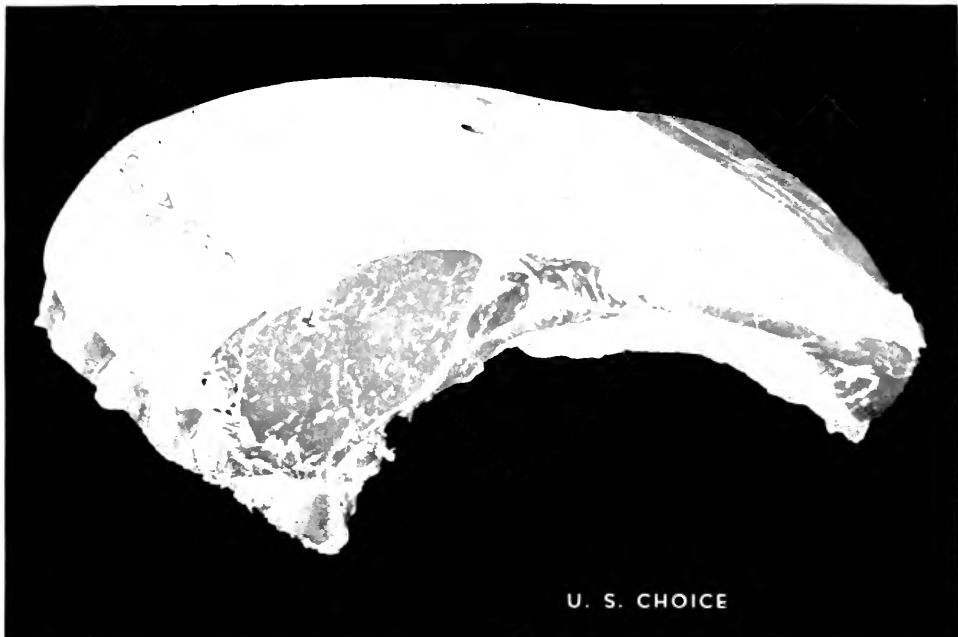
Eight of the shops handling branded beef handled it exclusively; 9 shops had from 75 to 99 percent of their beef business in branded beef; 11 had 50 to 74 percent; 9 had from 25 to 49 percent; 11 had less than 25 percent; and 6 shops gave no figures. Forty of the retailers reported purchasing steer beef, 38 heifer beef, and 1 said cow beef was purchased.

Reasons for Carrying Graded or Branded Beef

When asked why they handled graded beef, 14 retailers said that customers asked for it; 63 said because of dependability and uniformity in quality; 18 in order to advertise that they sold graded beef; 1 because he wanted to expand his beef business; and 3 for other reasons.

Thirteen retailers said they handled branded beef because their

¹Using the grade name now officially specified.



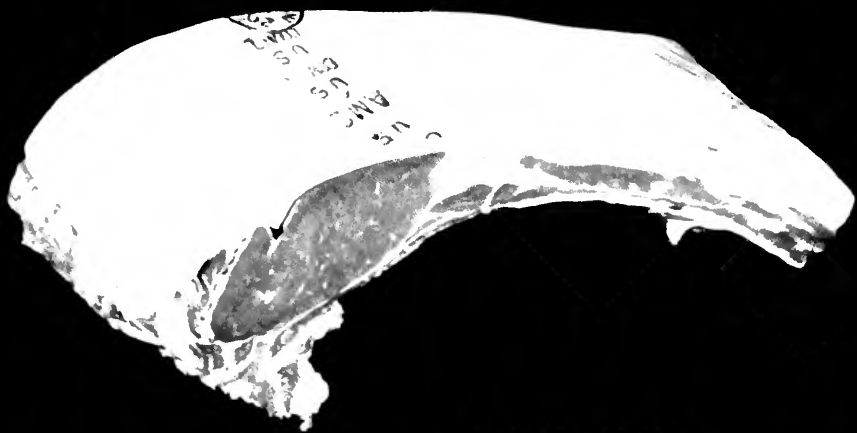
U. S. CHOICE

Choice mature beef has thick covering of white or creamy-white fat. Lean is bright cherry-red, well marbled. Usually best quality in retail market. **Good** beef (*below*) has less fat, less marbling, slightly darker lean. Excellent quality, more economical.



U. S. GOOD

RIBS OF OFFICIAL GOVERNMENT GRADES OF CARCASS BEEF
FACE OF 12TH RIB



U. S. COMMERCIAL

Commercial grade usually has rather thin covering of yellowish fat. Lean, darker than Good, has little or no marbling. **Utility** (*below*) has thin covering of yellow or bluish-gray fat, dark lean, no marbling. Both grades are relatively cheap and economical.



U. S. UTILITY

RIBS OF OFFICIAL GOVERNMENT GRADES OF CARCASS BEEF

FACE OF 12TH RIB

customers asked for it (and in several cases specified that those asking for it usually did so because they owned stock in a particular packing company or were employed by it); 11 said they handled it because of its dependability and uniformity; 5 because of packer advertising; 3 because salesmen encouraged them to buy it; 1 because selling branded beef helped business; 2 because they believed packers brand only their good beef; 2 said that they did not order it, but the packer just sent it; 4 in order to advertise that they sold branded beef; 1 handled it because he thought it was cheaper; and 1 because consumers have more confidence in branded beef.

Quality of the Branded Beef Seen

In 17 of the shops handling branded beef, the beef was seen by the investigator. Four of the samples seen were packer first brands, the grade being rated by the investigator as Choice in 1, low Choice in 2, and top Good in 1. Of 9 packer second brands seen, 1 was rated Choice, 3 top Good, 4 Good, and 1 Commercial. The one packer third brand seen was rated Commercial. In three shops the branded beef was from packing houses which, so far as the investigator could learn, use a single brand; of these, 1 was rated Good, 1 Commercial, and 1 Utility. It is interesting to note that this last carcass carried the stamp "choice yearling" altho it was very low grade.

Branded cuts were seen in 14 markets. Eight of these were packer first brands, the grades being appraised as 1 Choice, 2 low Choice, 3 top Good, and 2 Good. Of three packer second brands, 1 was rated low Good and 2 Commercial. The single packer third brand was considered to be a top Commercial. The packers' ratings for the other two brands were not known.

Beef Brands Seen

Nineteen different brands of beef from twelve different packers were noted in this particular study as follows:¹

Armour and Company—Star, Quality, Banquet, Armour
Cudahy Bros. Packing Company—Ce Be Co
Cudahy Packing Company—Puritan, Fancy
Dugdale Packing Company—Supreme
Empire Packing Company—Choice Yearling
G. H. Hammond Company—Rosebud, Famous
George O. Hormel and Company—Hormel
Oscar Mayer and Company, Inc.—Select
John Morrell and Company—Special
Swift and Company—Premium, Select
Wilson and Company, Inc.—Certified, Special
Wimp Packing Company—Baby Beef

¹The brands for each company are listed in the order of the quality of beef they are reported to carry.

The 1939 Chicago study showed again that most retailers do not understand the relationship between various packer brands.

Proportion of Unstamped Beef Carried

Four of the shops handling unstamped beef handled it exclusively; in 2 shops 75 to 99 percent of the beef sold was unstamped beef; in 6 shops 50 to 74 percent was unstamped; in 5 shops 25 to 49 percent; in 7 shops less than 25 percent; and in 8 shops no figures were supplied.

Twenty-three retailers said steer beef was handled, 24 said heifer beef, and 10 said cow beef. Two reported Choice beef handled, 12 Good, 10 Commercial, and 10 Utility. Of two unstamped sides seen in the coolers, one was Choice and the other top Good.

High-Quality Beef Sold in Each Income Area

Classified on the basis of their customers' income (Fig. 3), the Bryn Mawr shops fall in Area 1, the shops on East 55th Street in Area 2, and most of the other shops in Area 3. However, 2 shops south of Belmont on Lincoln Avenue and 4 shops nearest Wentworth Avenue on 63d Street were considered to be in Area 4. Actually several shops on 63d Street as well as several on Lincoln Avenue would probably be classed in Area 4 if only their immediate surroundings were considered.

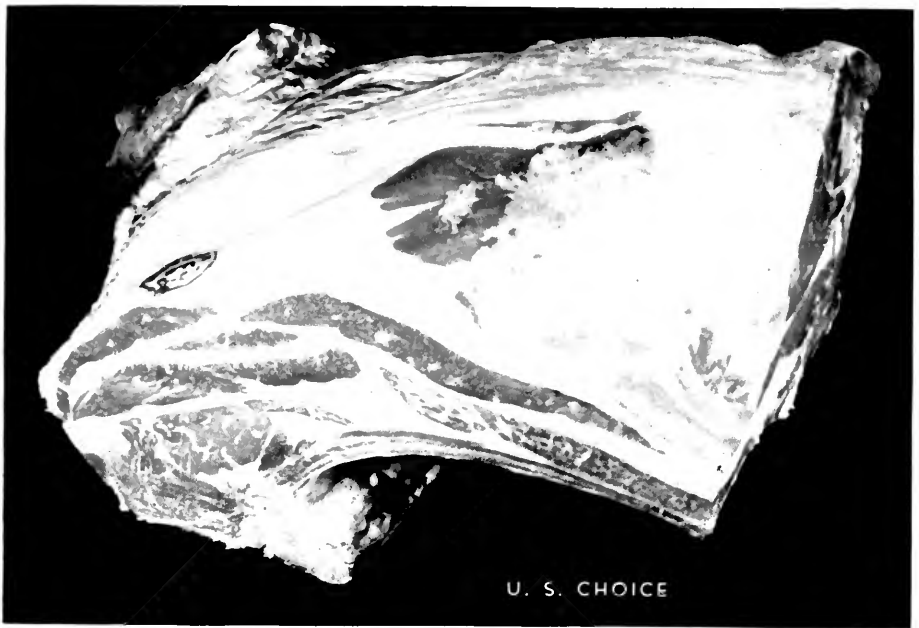
On the basis of these income areas the shop schedules were analyzed as to grades and brands of beef handled (Table 12). As in the 1938 study, the grades of beef handled varied rather directly with the income area, yet Choice beef was handled by some shops in each of the 4 areas.

Retailers Favored Sex Identification of Beef

As in the other interviews, retailers were asked whether they favored sex-branding of beef—that is, identification of the beef as

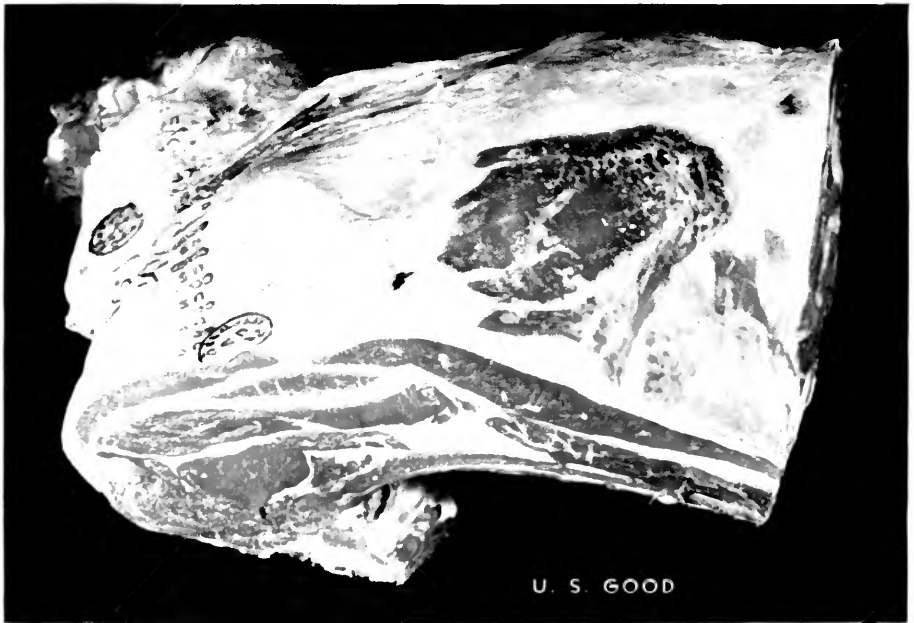
TABLE 12.—PROPORTION OF MARKETS IN VARIOUS INCOME AREAS HANDLING INDICATED GRADES AND BRANDS OF BEEF: 1939 CHICAGO STUDY

Income area	Number of markets	Markets handling grades indicated				Markets handling brands indicated				Markets handling unstamped beef
		U.S. Prime	U.S. Choice	U.S. Good	U.S. Commercial	First	Second	Third	Fourth	
		perct.	perct.	perct.	perct.	perct.	perct.	perct.	perct.	perct.
1 (wealthy).....	5	20.0	80.0	20.0	...	80.0	20.0	...	...	...
2 (upper middle)...	22	...	45.4	13.6	...	50.0	54.6	13.6	4.6	9.1
3 (middle).....	37	...	27.0	51.3	5.4	13.5	48.6	18.9	...	13.5
4 (lower middle)...	6	...	16.7	16.7	...	33.3	50.0	16.7	...	16.7



U. S. CHOICE

Choice yearling beef has less fat and marbling than **Choice** mature beef. Lean is light pink. Less wasteful, it is extensively used by discriminating consumers. **Good** (*below*) meets the requirements of the average consumer in quality and economy.



U. S. GOOD

CHUCKS OF OFFICIAL GOVERNMENT GRADES OF CARCASS BEEF
FACE OF 5TH RIB



U. S. COMMERCIAL

Commercial is of medium quality, has less fat than **Good**; fat usually slightly yellow; lean darker with little or no marbling. **Utility** (*below*) gives most lean for money. Lean is dark, no marbling. Small amount of yellow or blue-gray fat.



U. S. UTILITY

coming from a steer, a heifer, or a cow. The reply was "yes" in 43 shops (61.4 percent), "no" in 15 shops (21.4 percent), "no preference" in 9 shops (12.9 percent), and 3 shops (4.3 percent) gave no answer.

In general, the results of the 1939 study in Chicago check satisfactorily with those of the previous year.

PART III: 1939 DECATUR MARKET STUDY

The first purpose of the survey of the retail meat markets in Decatur was to ascertain why and to what extent graded and branded beef was handled in the city and what grades or brands were handled. In addition a cross-section was wanted of the quality of beef handled in a particular city. With the exception of the stores of one corporate chain,¹ all retail stores that were cutting fresh beef (block beef) were visited, and information was furnished by 159 out of 161 stores.

Amount of Graded, Branded, and Unstamped Beef Handled

The numbers and proportions of shops handling graded, branded, and unstamped beef are shown in Table 13. Only 1 shop handled graded beef exclusively, compared with 63 handling only branded beef,

TABLE 13.—NUMBER AND PERCENTAGE OF 159 MARKETS HANDLING GRADED, BRANDED, AND UNSTAMPED BEEF: DECATUR MARKET SURVEY

Kind of beef handled	Number of markets	Percentage of markets
Graded exclusively.....	1	.6
Branded exclusively.....	63	39.7
Graded and branded.....	4	2.5
Graded and unstamped.....	1	.6
Branded and unstamped.....	49	30.8
Graded, branded, and unstamped.....	6	3.8
Unstamped exclusively.....	35	22.0

and 35 handling only unstamped beef. The proportion of shops handling branded beef exclusively would appear to be a little higher in Decatur than downstate (Table 1) (tho the downstate figures might have been higher had they been taken in 1939 instead of in 1938), and the proportion handling branded and unstamped beef was lower, while the proportion handling only unstamped beef was very much higher.

Only 12 of the 159 shops (7.5 percent) reported that graded beef was handled. However, 124 shops (78 percent) handled branded beef.

¹Officials of each chain-store organization were asked for permission to interview the managers of meat departments in their stores; one chain declined to grant this permission.

Thirty-five shops (22 percent) reported neither graded nor branded beef sold.

Each of the 12 shops handling graded beef reported steer beef purchased. One shop handled U.S. Prime only, 4 shops U.S. Choice, 5 shops U.S. Good, while for 2 shops the grade was not indicated. Three retailers said that 95 percent or more of their total beef sales were of graded beef; 2 retailers said 50 to 75 percent; 2 said 10 to 25 percent; and 5 said less than 10 percent.

Of the 124 shops handling branded beef, packers' first brands were reported by 10; packers' second brands by 95; packers' third brands by 75; packers' fourth brands by 20; and packers' fifth brands by 1.¹ When asked what proportion of their total beef sold was branded beef, 63 retailers said branded beef was handled exclusively; 33 said 75 to 99 percent of their beef was branded; 20 said 50 to 70 percent was branded; 5 said 10 to 25 percent was branded; and 1 retailer said less than 10 percent of his beef was branded.

Eighty of the retailers handling branded beef said they bought steer beef, 88 said they bought heifer carcasses, and 14 said cow beef was purchased.

Thirty-five of the retailers handling unstamped beef said all of the beef they sold was unstamped²; 4 retailers said 75 to 99 percent was unstamped; 16 said 50 to 74 percent; 6 said 25 to 49 percent; 22 said 10 to 24 percent; and 8 said less than 10 percent. Thirty-five of these retailers said that they purchased steer beef, 44 reported buying heifer beef, and 50 said cow beef was purchased.

Reasons for Carrying Graded or Branded Beef

When giving their reasons for handling graded beef, 10 of the 12 retailers listed the dependability and uniformity of the quality of the graded beef; 4 said their customers asked for graded beef; and 4 said they wanted to advertise to their trade that they handled graded beef. No retailer said packer salesmen encouraged him to buy graded beef, and none said price was a consideration in handling it.

Only 9 of the 124 retailers handling branded beef said that customers asked for it; 82 said branded beef was handled because they thought it was cheaper; 64 said they bought it because of its uniformity and dependability; 28 bought it because packer salesmen encouraged them to buy it; 20 in order to advertise that they sold branded beef;

¹One brand was not classified; it was used by a packer located outside the Decatur area, and information was not available as to whether more than one brand was used or where it should be rated in comparison with other packers' brands.

²Most of the beef distributed by two local packers is unstamped. This may account in part for the number of shops handling only unstamped beef.

2 because they thought that was all they could get; 1 because he could not get graded beef; while 7 gave other reasons.

Beef Brands Numerous

In the Decatur study, as in the other studies, a confusingly large number of beef brands—17 brands marketed by six packing companies—were observed. The names of the companies and the brands are shown below, the brands being listed in the order of the quality of beef they are reported to carry and blanks inserted for brands in use by each packer but not observed in the course of this study:¹

Armour and Company—Star, Quality, Banquet, Armour
Cudahy Packing Company—....., Fancy, Thrift,
John Morrell and Company—.....,,, Morrell, Allrite
Rath Packing Company—Blackhawk, Korn Land, Korn King, Rath
St. Louis Independent Packing Company—Mayrose, Independent Tidy,
 Independent,
Swift and Company—Premium, Swift Select, Swift, Sanco

Many Retailers Bought Wholesale Cuts

Of the 159 retailers interviewed, 100 reported that they purchased their beef as wholesale cuts. Three retailers dressed their own cattle. The rest purchased their beef as dressed cattle or as sides or quarters.

Retailers who purchase all their beef as wholesale cuts may have a highly specialized trade or too little business to permit buying more than a small amount of beef at a time. The retailer buying only cuts does not always know exactly what class and grade of beef he is receiving and pays somewhat more a pound than the same beef would cost in carcass. He has the advantage of having less waste (trimmings) to dispose of, and the problem of keeping sales of different cuts in balance is simplified. Customers who buy from retailers carrying only wholesale cuts may receive a lower quality of beef for the price paid than when they buy from retailers purchasing carcasses, and they may have less choice of cuts.

Quality of Beef Handled

Sixty sides of beef in 59 shops were appraised for grade by the investigator. More were seen, but where several were seen in one shop and all were of the same grade, only one notation was made. The investigator appraised these as follows: 1 Prime, 3 Choice, 2 low Choice, 6 top Good, 24 Good, 10 low Good, 3 top Commercial, 6 Commercial, 3 low Commercial, and 2 Utility.

Thirty-four of the 60 sides appraised by the investigator were branded beef. Of these 1 was a packer first brand; 26 were packer

¹Since some packers are still making changes in their brand names, a list compiled at one time might differ from a list compiled at another time.

second brands; 4, packer third brands; 2, packer fourth brands; and 1, a packer fifth brand. The first brand carcass was rated as top Good in grade. Of the 26 second brands 2 were rated low Choice, 4 top Good, 14 Good, 5 low Good, and 1 top Commercial. Of the 4 third brands, 2 were rated top Commercial and 2 Commercial. One of the 2 fourth brands was rated low Commercial and the other Utility. The one fifth-brand carcass was rated Commercial. These ratings are of interest because of their bearing on price as well as their relation to quality. The retailer who gets a Good carcass may pay as much a pound (if he is not a discriminating buyer) as his competitor who receives a top Good.

This variation in quality in packer brands indicates that simply knowing brand names will not enable a consumer to purchase beef safely.

As already pointed out, 100 of the 159 retailers interviewed purchased no carcasses, but bought their beef as wholesale cuts. Grade notations were made by the interviewer on 72 cuts (29 rounds, 14 loins, 5 ribs, and 24 chucks). Of these 72 cuts 1 was considered low Choice, 1 top Good, 16 Good, 17 low Good, 7 top Commercial, 11 Commercial, 8 low Commercial, 1 top Utility, 8 Utility, and 2 low Utility.

Forty-two of these 72 wholesale cuts carried packers' brands distributed as follows: 1 first brand, 28 second brands, 10 third brands, and 3 fourth brands. They were rated for quality as follows: the first brand was a top Good to low Choice; of the 28 second brand cuts, 17 were Good, 9 low Good, and 2 top Commercial; of the 10 third brands, 2 were top Commercial, 3 Commercial, 4 low Commercial, and 1 Utility; and of the 3 fourth brands, 1 was rated top Utility and 2 Utility.

Judged on the basis of these gradings, the meat in the shops purchasing only wholesale cuts was of lower quality than that in shops where the beef was bought as sides, 35 of the wholesale cuts being graded low Good or better and 37 Commercial or below.

There may be many reasons why wholesale cuts would be inferior in quality to beef sold as sides. Presumably the retailers that buy beef as sides and go to the branch house or cooler to select their beef would select the better sides in each grade and the less desirable ones would be broken up into wholesale cuts. As previously pointed out, it is more difficult to judge the grade when beef is cut into wholesale cuts than when it is left in sides or quarters. Very possibly the retailers operating the larger shops are better judges of beef, more discriminating in their selection, and more effective buyers than those who operate small shops.

All ratings were by the same investigator and are believed to give a fair cross-section of beef sold in shops in Decatur.

Light-Weight Beef Preferred

Cattle feeders are frequently told of the strong demand for slaughter cattle of the lighter weights. To obtain direct information about this demand, Decatur retailers were asked what weight of carcass they purchased or from what weight of carcass the cuts they purchased were taken; 151 answers were received. Because few beef producers understand within what narrow limits retailers' weight preferences fall, the figures are presented below in rather detailed form.

<i>Carcass weight preferred lb.</i>	<i>Number of shops</i>	<i>Percent of shops</i>	<i>Carcass weight preferred lb.</i>	<i>Number of shops</i>	<i>Percent of shops</i>
238-262.....	1	.7	413-437.....	18	11.9
263-287.....	1	.7	438-462.....	15	9.9
288-312.....	2	1.3	463-487.....	6	4.0
313-337.....	15	9.9	488-512.....	6	4.0
338-362.....	24	15.9	513-537.....	2	1.3
363-387.....	25	16.6	538-562.....	2	1.3
388-412.....	34	22.5			

Carcasses weighing between 350 and 450 pounds were most often preferred. It is doubtful if a carcass weighing less than 300 pounds is entitled to be called beef; it is more likely to be a heavy calf. It is interesting to note that none of these 151 retailers wanted carcasses weighing over 562 pounds.

If the 400-pound carcass came from a Choice yearling dressing 58 percent of its live weight, it would represent a live animal of only 690 pounds. If the 500-pound carcass came from a Choice steer dressing 61 percent, it would represent an 820-pound live animal. If the carcasses were of only Good grade or lower, they would represent cattle of slightly heavier live weights. It is clear, therefore, that Decatur retailers want few cattle weighing as much as 800 pounds alive.¹

In the 1938 study the bulk of the shops preferred beef carcasses weighing between 350 and 500 pounds. The results of the 1938 study were as follows:

<i>Carcass weight preferred lb.</i>	<i>Chicago shops</i>		<i>Downstate shops</i>	
	<i>number</i>	<i>perct.</i>	<i>number</i>	<i>perct.</i>
200-249.....	3	1.7	..	....
250-299.....	1	.6	..	....
300-349.....	10	5.7	13	7.7
350-399.....	50	28.4	37	22.0
400-449.....	52	29.5	65	38.7

¹Readers who are interested in more specific information on the relation of live to dressed weights for Good and Choice cattle and in detailed slaughter data are referred to Bulletin 355 of this Station, "Effects of Sex, Length of Feeding Period, and a Ration of Ear-Corn Silage on the Quality of Baby Beef," by Sleeter Bull, F. C. Olson, and J. H. Longwell.

<i>lb.</i>	<i>number</i>	<i>perct.</i>	<i>number</i>	<i>perct.</i>
450-499.....	32	18.2	36	21.4
500-549.....	10	5.7	9	5.4
550-599.....	7	4.0	5	3.0
600-649.....	6	3.4	2	1.2
650-699.....	2	1.1	..	....
700-749.....	2	1.1	1	.6
750-800.....	1	.6	..	....

Retailers' Knowledge of Wholesale-Beef Prices

Retailers were asked what sources of information they had for prices of wholesale beef, so they could judge whether they were purchasing their beef at the market price. About one-third of the retailers said they depended on a comparison of quotations by different packers and branch houses; 20 percent relied on branch-house quotations; 17 percent on wholesalers' quotations; 10 percent judged by the live-cattle prices; 9 percent depended on the beef salesmen; about 2 percent used the wholesale-market report of the Bureau of Agricultural Economics; and the rest answered in various ways.

Prices Paid By Retailers

On 45 sides of beef the price paid by the retailers was ascertained and the grade of the beef noted by the investigator. Later these prices were compared with the Chicago quotations of the U. S. Department of Agriculture for the same grades and weights on the same dates. The prices on 12 of the 45 sides of beef were below the Chicago quotations, 8 were the same, and 25 were above. The prices that were below the Chicago quotations ranged from 25 cents to \$1 per hundred-weight below; while the prices that were above the Chicago quotations ranged from 50 cents to \$1.25 per hundredweight above. Since nearly all of Decatur's beef supply comes from the west (aside from the portion dressed locally), wholesale prices would be expected to be somewhat below Chicago quotations.

This example seems to show again that retailers should pay close attention to the wholesale-beef market.

Sex Identification of Beef Wanted

As in the 1938 investigation, all the retailers interviewed were asked whether they favored sex-branding of beef carcasses (stamping them as steer, heifer, or cow). The majority of these men favored sex identification on the beef they buy. Of the 159 retailers, 99 (62 percent) answered "yes"; 2 said "yes" for cow beef; 49 (31 percent) said "no"; 7 had no opinion; and 2 were indifferent.

PART IV: CONSUMERS' ATTITUDES TOWARD GRADED AND BRANDED BEEF

The preferences of consumers are of course important in determining the amount and kind of beef retailers will offer for sale. How much consumers know about government grades and graded beef or about packer brands and branded beef has not been known; neither has it been known to what extent they are buying graded beef or branded beef and which grades or brands they are buying. In seeking an answer to these questions, the authors selected Decatur as a representative Illinois urban community¹ and 351 consumers were interviewed there during the summer of 1939. The results of the survey are presented in this section.

One reason for selecting Decatur was that Government-graded beef had been put on sale there rather recently, at the request of local housewives.

The survey of the city's retail meat markets described in Part III, which provided information about the availability of graded and branded beef and about the grades of beef, was conducted during the same months and by the same investigator.

Method of Sampling

Contact with the consumers was first made thru the city chairman of the Homemakers Group of the Decatur Parent-Teacher Association. As a result of her active cooperation, women attending three local group meetings were interviewed and 67 schedules obtained.²

Housewives buying beef in four shops that carried graded beef (Fig. 6) were also interviewed. The proprietors cooperated most cordially by permitting these interviews and by introducing the investigator to their customers. Ninety-five schedules were taken in these shops; these schedules and the consumers they represent are referred to hereafter as the "shop sample."

Since interviews with consumers in each section of the city were desired, thirteen public grade schools were used as base points and the surrounding residential areas canvassed. The locations of these schools and the areas surveyed around each are also shown in Fig. 6. Within each of these areas a call was made at every fourth house. Wherever a schedule was not obtained, the next house was substituted. A total

¹Decatur has a population of 57,000 and is the county seat of Macon county. It is an important distribution center and is located in a very good farming area, yet the city is largely industrial.

²These schedules were found to be comparable to those taken later in the random sample and the two were therefore combined.

of 256 schedules was obtained, including those from the three meetings of the local Parent-Teacher Association. These 256 schedules and the consumers they represent are hereafter referred to as the "random sample."

Thus a total of 351 consumer interviews was obtained.

Income Groups Represented

Of the 256 schedules in the random sample, 237 indicated the family income. These were sorted into four groups: families receiving \$100 a month or less, those receiving \$101 to \$200, those receiving \$201 to \$300, and those receiving over \$300. Eighty-one schedules (34 percent) came within the lowest group; 116 (49 percent) in the second; 24 (10 percent) in the third; and 16 (7 percent) in the highest.

Of the 95 shop schedules, incomes were reported by 93. Twelve of those interviewed, or 13 percent of the total, were in the lowest income group; 32 (35 percent) in the second group; 30 (32 percent) in the third group; and 19 (20 percent) were in the highest group. A noticeably higher proportion of the shop sample was in the two higher income groups than was true of the random sample.

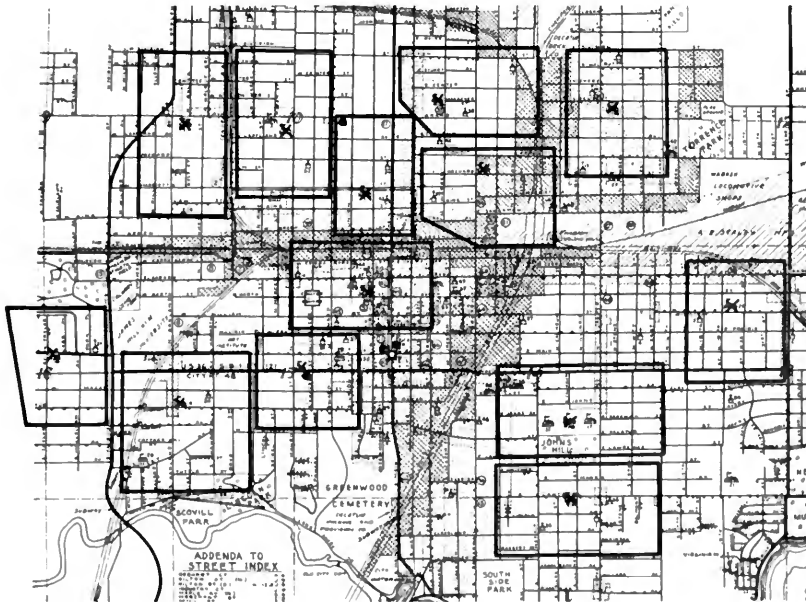


FIG. 6.—AREAS INCLUDED IN 1939 DECATUR CONSUMER SURVEY

Heavy dots show location of the markets in which customers were interviewed; crosses show elementary schools which were used as base points in collecting data for the random sample.

The data of the shop sample are tabulated on the basis of the shop at which the interview was held and those of the random sample on the basis of the incomes of the consumers.

Quality of Beef Bought

The first question asked was: "What quality of beef do you buy?" This question was put first in an effort to get the consumer's own idea before any discussion with the investigator might suggest ideas or terms that would not otherwise have occurred to her.

Thirty-nine percent of the consumers in the random sample indicated that they purchased the best beef; 38 percent that they purchased good beef; 20 percent, medium-quality beef; and 3 percent, low-quality beef (Table 14). In the shop sample a larger percentage claimed to buy the best quality of beef.

TABLE 14.—QUALITY OF BEEF CONSUMERS REPORTED PURCHASING:
DECATUR CONSUMER STUDY

Consumer groups	Consumers purchasing indicated quality					Consumers purchasing same quality in all cuts		
	Number in sample	Low	Medium	Good	Best	Number in sample	Yes	No
<i>Random sample</i>		<i>perct.</i>	<i>perct.</i>	<i>perct.</i>	<i>perct.</i>		<i>perct.</i>	<i>perct.</i>
\$100 or less monthly income	79	7.6	38.0	29.1	25.3	78	32.1	67.9
\$101 to \$200.....	114	.9	15.8	45.6	37.7	113	58.4	41.6
\$201 to \$300.....	24	...	4.2	29.2	66.6	23	78.3	21.7
Over \$300.....	14	...	7.1	28.6	64.3	16	62.5	37.5
Total.....	231	2.8	20.3	37.8	39.1	230	51.7	48.3
<i>Shop sample</i>								
Shop 1.....	31	...	...	19.4	80.6	31	100.0	...
Shop 2.....	22	...	4.5	9.1	86.4	22	100.0	...
Shop 3.....	17	...	11.8	58.8	29.4	17	70.6	29.4
Shop 4.....	25	...	4.0	60.0	36.0	25	72.0	28.0
Total.....	95	...	4.2	34.7	61.0	95	87.4	12.6
<i>Random sample</i>								
Those buying graded beef..	62	...	3.1	33.9	63.0	62	74.2	25.8
All others.....	184	3.8	26.1	39.1	31.0	185	45.9	54.1

The high proportion claiming to buy good or best beef would tend to indicate that Decatur shops handle a high quality of beef. However, the data on the grades of beef sold in Decatur shops (page 370) seem to show that a fourth of the beef in the shops buying sides and half of the beef in shops buying cuts was below U.S. Good in quality. It may therefore be doubted that three-fourths of the consumers received beef of "Good" grade or better. The contradiction probably arises from the fact that many consumers do not know what "good" beef is (the term being used here as equivalent to U.S. Good or better), or that

some of the consumers may have said they bought the best, whether or not they did buy it.

Consumers' Knowledge of Beef Grades

Before consumers were asked anything about the purchase of graded beef, they were asked to name any of the Government beef grades they knew. The grade of Choice was mentioned most frequently, Good next, Prime third, and Medium fourth. No attempt was made to ascertain whether the consumers' information about the grades had been obtained by purchase of graded beef or from other sources.

Altho 57 of the consumers in the random sample stated that they purchased graded beef occasionally, only 53 could name one or more of the Government grades. On the other hand, 45 of the 95 women interviewed in the shop sample named at least one Government grade. The proportion of women familiar with Government grades was definitely higher in this group than in the random sample.

Consumers were next asked whether they purchased graded beef, and if so what classes and grades they purchased. The percentage of customers in the random sample buying graded beef varied directly with the income level (Table 15). In the shop sample the range was from 29 percent in Shop 3 to all in Shop 1, which sold only graded beef. For the random sample the average was 25.9 percent, and for the shop sample 74.7 percent.

Definitely significant are the percentages of consumers that did not know whether they purchased graded beef—from 20 percent up to 81 percent in the four income groups of the random sample, and from none to nearly 71 percent in the shop sample. It should be borne in mind that graded beef had been available in Decatur for only a rela-

TABLE 15.—CONSUMERS REPORTING PURCHASE OF GRADED BEEF:
DECATUR CONSUMER SURVEY

Consumer groups	Number in sample	Graded beef purchased	Graded beef not purchased	Do not know
<i>Random sample</i>		<i>perct.</i>	<i>perct.</i>	<i>perct.</i>
\$100 or less monthly income	73	11.0	8.2	80.8
\$101 to \$200	109	25.7	10.1	64.2
\$201 to \$300	23	52.2	8.7	39.1
Over \$300	15	60.0	20.0	20.0
Total	220 ^a	25.9	10.0	64.1
<i>Shop sample</i>				
Shop 1	31	100.0	....	....
Shop 2	22	81.8	....	18.2
Shop 3	17	29.4	....	70.6
Shop 4	25	68.0	....	32.0
Total	95	74.7	....	25.3

^aNineteen others did not specify the family income; of these, six reported that they purchased graded beef.

TABLE 16.—GOVERNMENT GRADES OF BEEF CONSUMERS REPORTED PURCHASING:
DECATUR CONSUMER SURVEY

Consumer groups	Number of replies	Prime or Choice purchased	Good or Medium purchased
<i>Random sample</i>		<i>perct.</i>	<i>perct.</i>
\$100 or less monthly income.....	10	50.0	50.0
\$101 to \$200.....	36	61.2	38.8
\$201 to \$300.....	13	76.9	23.1
Over \$300.....	12	75.0	25.0
Total.....	71	64.8	35.2
<i>Shop sample</i>			
Shop 1.....	25	100.0	....
Shop 2.....	11	100.0	....
Shop 3.....	6	83.3	16.7
Shop 4.....	20	65.0	35.0
Total.....	62	87.1	12.9

tively short time and in only a few shops. Those interviewed in the shops were much better informed regarding the grade and the quality of beef that they purchased than were those interviewed in the random sample.

Sixty-five percent of those in the random sample that purchased graded beef reported they purchased either Prime or Choice beef, and 35 percent bought Good or Medium grades. Corresponding percentages for the shop sample were 87 and 13 (Table 16). Half of those in the lowest-income group that purchased graded beef reported they selected Prime or Choice grades, while three-fourths of those in the two highest income groups bought these highest grades.¹

The housewives in the random sample and in the shop sample were asked what class (sex) of beef they purchased. Over half of the consumers did not know what class of beef was sold to them.

Sex Identification of Beef Preferred

A majority of the consumers wanted to know what class of beef they purchased (Table 17).² Sixty-six percent of the lowest-income

¹In a study in Minneapolis, Waite and Cox found that steaks and roasts constituted 66 percent of the total beef consumption in the low-income group and 82 percent in the high-income group. They say, "The shift from the poorer to the better carcasses and cuts is indicated in the data," but possibly the shift was merely from lower to higher priced cuts since no data on the grade or the quality of the beef purchased were presented. "A Study of the Consumption of Meats in Minneapolis, 1934," by W. C. Waite and R. W. Cox. Minn. Agr. Exp. Sta. Bul. 321, page 19. 1935.

²Since the question "Do you want the sex of the cattle stamped on the beef?" was asked thruout the surveys of retail shops, it was thought desirable to ask it also in the consumer study, tho the question was not included in the consumer's schedule.

TABLE 17.—CONSUMERS REPORTING THEY WANT CLASS IDENTIFICATION OF BEEF:
DECATUR CONSUMER SURVEY

Consumer groups	Number in sample	Class identification wanted	Class identification not wanted
<i>Random sample</i>		<i>perct.</i>	<i>perct.</i>
\$100 or less monthly income.....	59	66.1	33.9
\$101 to \$200.....	85	72.9	27.1
\$201 to \$300.....	18	83.3	16.7
Over \$300.....	15	80.0	20.0
Total.....	177	72.3	27.7
<i>Shop sample</i>			
Shop 1.....	30	33.3	66.7
Shop 2.....	20	45.0	55.0
Shop 3.....	17	35.3	64.7
Shop 4.....	22	63.6	36.4
Total.....	89	43.8	56.2
<i>Random sample*</i>			
Those buying graded beef.....	53	86.8	13.2
All others.....	136	67.6	32.4

*Includes some who did not designate the family income.

group of the random sample favored sex identification. This group would be expected to buy more cow beef than would any of the others. More than 80 percent of the two highest-income groups favored having the sex of cattle stamped on beef. The fact that 72 percent of the random sample favored it suggests that consumers believe sex identification would be an advantage to them.

Only 44 percent of the consumers in the shop sample favored sex identification, and only about one-third of those interviewed in a shop cutting only Choice steer beef favored it. Probably because these consumers were for the most part getting steer beef of a satisfactory quality they were less concerned about sex identification.

Reasons for Starting to Buy Graded Beef

When asked why they began to buy graded beef, the consumers in the random sample placed retailers' influence first and the effect of club meetings second. Advertising rated a poor third—not surprising since there has been almost no direct advertising of graded beef. No correlation between amount of income and reasons for beginning to buy graded beef was discovered.

In the shop sample "other influences," such as the influence of friends or of mothers, was mentioned somewhat oftener than the influence of retailers. The influence of club meetings was not very important. It should be kept in mind that graded beef was introduced into Decatur on the initiative of consumers. The retailers tried graded beef, were pleased with it, and rapidly increased the proportion handled; moreover certain retailers were active in acquainting their customers with graded beef. The influence that a retailer may exer-

cise is suggested by the fact that 70 percent of those interviewed in one shop credited the retailer with interesting them in graded beef.

Reasons for Continuing to Buy Graded Beef

Presumably it is quite as important to know consumers' reasons for continuing to buy graded beef as to know whether they buy it. Their reasons for buying graded beef and the extent to which the product satisfies them will determine whether purchases will continue. Five qualities—leanness, tenderness, flavor, price, and dependability—were thought to be most important to consumers when buying graded beef. Consumers were asked which of these they considered most important. The replies are presented in Table 18.

TABLE 18.—REASONS CONSUMERS GAVE FOR CONTINUING TO PURCHASE GRADED BEEF: DECATUR CONSUMER SURVEY

Consumer groups	Number of reasons	Graded beef purchased for its—				
		Lean-ness	Tender-ness	Flavor	Price	Depend-ability
<i>Random sample</i>		<i>percl.</i>	<i>percl.</i>	<i>percl.</i>	<i>percl.</i>	<i>percl.</i>
\$100 or less monthly income..	18	5.6	38.9	33.3	...	22.2
\$101 to \$200.....	45	4.4	31.1	28.9	2.2	33.4
\$201 to \$300.....	23	4.3	30.4	26.1	4.3	34.9
Over \$300.....	20	...	35.0	35.0	...	30.0
Total.....	106	3.8	33.0	30.2	1.9	31.1
<i>Shop sample</i>						
Shop 1.....	53	5.7	37.7	24.5	...	32.1
Shop 2.....	30	16.7	26.7	13.3	...	43.3
Shop 3.....	13	7.7	30.8	23.1	7.7	30.7
Shop 4.....	33	6.1	36.4	30.3	3.0	24.2
Total.....	129	8.5	34.1	23.3	1.6	32.5

Tenderness, flavor, and dependability are shown as equally important in the random sample. In the shop sample tenderness and dependability rate highest and flavor is mentioned somewhat less frequently. Price was not an important consideration, and leanness was emphasized by customers of Shop 2 only.

Packer Brands Not Known By Housewives¹

The first question that the interviewer asked the housewife regarding branded beef was what packer beef brands she knew, some knowledge of packer brands being considered essential to intelligent buying of branded beef.

¹Packers have not advertised their beef brands extensively. The first such advertisements by a national packer appeared in 1939 in the *Saturday Evening Post*, November 25 (page 77), and December 16 (page 75). But neither explained any difference between the brands named.

HOW TO BUY TOP QUALITY BEEF!

THERE is a way to buy top-quality beef—to know you are getting exactly what you pay for. It's a sure way . . . a simple way, too . . . as explained here, by the Dominion Department of Agriculture. You can buy this high quality beef by grade, with confidence.

Only top-quality beef is graded according to Government standards . . . and there are but two grades—Red and Blue. Red Brand beef, "Choice" quality, is marked with a red ribbon-like stamp, so that part of this grade mark remains visible on every cut. Blue Brand, "Good" quality, is marked similarly, with a blue ribbon-like stamp. To be sure of top-quality beef, therefore—look for some portion of the red or blue ribbon-like stamp on the cut you buy.

Do not confuse this round *perole* stamp with the *grade mark* mentioned above. This is the Government health stamp, which appears on all beef from Government-inspected abattoirs. It does not indicate quality but merely records the beef as being fit for human consumption.

Marketing Service
DOMINION DEPARTMENT OF
AGRICULTURE
Honourable James G. Gardiner, Minister

RED
Brand

"CHOICE"
Quality beef,
identified
by the red,
ribbon-like
grade stamp.

BLUE
Brand

"GOOD"
Quality beef,
identified
by the blue,
ribbon-like
grade stamp.

Buy by Grade..Buy with Confidence

FIG. 7.—ADVERTISEMENT OF CANADIAN GOVERNMENT GRADE-STAMPED BEEF

In paid advertisements such as these the Dominion Department of Agriculture urges consumers to purchase various foods on the basis of government grades. Slogan at bottom reads: "Buy by Grade . . . Buy with Confidence." The U. S. Department of Agriculture issues pamphlets and posters of similar nature but does not have authority to buy advertising space. (*Reproduced by permission of the Dominion Department of Agriculture, Ottawa, Canada.*)

Few housewives could name any brands. In fact most of them could give nothing more than the names of certain packing companies. A few could name the top-quality brands used by some packers, but even these women seldom knew anything about packers' second, third, or fourth brands.

Since housewives did not know the various brands, the relationship between brands, or the quality each was supposed to represent, it appears that to most consumers a brand is primarily an identification of the packer from which the beef came.

Obviously many factors may serve to determine how many beef brands are known by the consumer. People must see brands before

they can know or name them. Someone must inform them of the difference between brands before they can have an idea of the qualities different brands are supposed to represent. Consumers buying beef largely from shops handling low-quality beef, little or none of it branded, or buying from shops handling graded beef exclusively would not be expected to know packer brands.

Much Branded Beef Purchased

Eighty-four percent of the housewives in the random sample said they purchased branded beef, 4 percent said not, and 12 percent said they did not know (Table 19). Of the shop sample, 58 percent said "yes," 38 percent said "no," and only 4 percent said they did not know. No close relationship with income is shown, tho a smaller

TABLE 19.—CONSUMERS REPORTING PURCHASE OF PACKER-BRANDED BEEF:
DECATUR CONSUMER SURVEY^a

Consumer groups	Number in sample	Branded beef purchased	Branded beef not purchased	Do not know
<i>Random sample</i>		<i>perct.</i>	<i>perct.</i>	<i>perct.</i>
\$100 or less monthly income.....	81	69.1	3.7	27.2
\$101 to \$200.....	115	93.1	1.7	5.2
\$201 to \$300.....	24	91.7	8.3	...
Over \$300.....	14	78.6	14.3	7.1
Total.....	234	83.8	3.8	12.4
<i>Shop sample</i>				
Shop 1.....	31	38.7	61.3	...
Shop 2.....	22	45.5	45.5	9.1
Shop 3.....	17	82.4	11.8	5.8
Shop 4.....	25	76.0	20.0	4.0
Total.....	95	57.9	37.9	4.2

^aIt was later found that consumers do not differentiate between the different brands of a single packer. The answers then probably refer only to beef with a packer's company name branded on it.

proportion of the highest-income group in the random sample reported purchasing branded beef than of the two intermediate groups.

The proportion of the consumers in the shop sample reporting branded beef purchased is smaller than for the random sample, as would be expected since the shops used in this survey handled a great deal of graded beef. A high percentage of the customers in two of the shops reported that they did not purchase branded beef, probably because only a small amount of it was handled in the markets where they traded.

Why Branded Beef Was Bought

All groups said that they bought branded beef because it was tender. Flavor was rated second by most groups. Price was listed as important by the lowest-income group in the random sample and by those consumers interviewed in Shop 2. Forty-one percent of all the consumers

in the random sample rated tenderness as a first consideration and 30 percent said flavor, while in the shop sample 39 percent said tenderness and 20 percent said flavor.

Eighteen percent of the consumers in the shop sample gave dependability as a reason for buying branded beef, whereas only 8 percent of the random sample did so. The women interviewed at the shops may have been getting branded beef of good and uniform quality. This uniformity might result from consistency in packer grading or it might be due to the alertness of these retailers, their knowledge of beef, and their refusal to accept beef not up to their standard. The same comment could be made concerning the listing of dependability by 31 percent of the highest-income group in the random sample.

Consumers' Preferences for Three Quality Factors

Beef is graded on three characteristics—conformation, finish, and quality. *Conformation* concerns the general form, thickness, and shape or outline of a carcass or cut, as well as its symmetry, balance, and general appearance. Since the housewife usually does not see the carcass, she is not in a position to evaluate conformation. *Finish* refers to the amount, character, and distribution of the fat on and in the beef, and is a good index of quality in beef, a certain amount of fat being essential for good palatability.¹ The consumer has a chance to judge finish since each cut shows some evidence of it. *Quality* is a characteristic of both the lean and the fat and can best be judged by color of lean and fat, firmness and texture of the lean, age of the cattle, and degree of marbling.

The age of the cattle and the texture of the lean are more difficult to judge than are the other characteristics, and the average consumer probably pays little attention to them. However, amount and color of fat, marbling, and color of the lean are immediately noticeable in a piece of beef, and it is fairly easy to approximate quality. To find out if the housewives interviewed were doing this and whether they knew what to look for as indications of quality, several questions regarding quality in beef were included in the interviews.

Amount and color of fat. The data in Table 20 show the amount and color of fat in beef that these consumers preferred and illustrate the degree of knowledge that consumers in general have of two of the principal indicators of quality in beef.²

¹Market classes and grades of dressed beef. W. C. Davis and C. V. Whalin. U. S. Dept. Agr. Bul. 1246, p. 7. 1924 (revised March, 1927).

²It may be that some of these consumers could not afford to buy beef that carried the characteristics of good quality and so reported the quality they bought instead of the quality they preferred. It is thought, however, that in general the answers reflect the consumers' preferences.

TABLE 20.—AMOUNT AND COLOR OF FAT IN BEEF PREFERRED BY CONSUMERS:
DECATUR CONSUMER SURVEY

Consumer groups	Number in sample	Preferred white fat	Preferred yellowish fat	Had no preference	Number in sample	Preferred goodly amount of fat	Preferred small amount of fat	Preferred no fat
<i>Random sample</i>		<i>perct.</i>	<i>perct.</i>	<i>perct.</i>		<i>perct.</i>	<i>perct.</i>	<i>perct.</i>
\$100 or less monthly income	81	44.2	54.5	1.3	77	21.0	74.1	4.9
\$101 to \$200	116	61.7	35.5	2.8	107	23.3	69.8	6.9
\$201 to \$300	24	70.8	16.7	12.5	24	37.5	62.5	...
Over \$300	16	64.3	21.4	14.3	14	62.5	25.0	12.5
Total	237	56.7	39.2	4.1	222	26.6	67.5	5.9
<i>Shop sample</i>								
Shop 1	31	77.8	22.2	...	27	87.1	...	12.9
Shop 2	22	53.0	47.0	...	17	54.5	22.8	22.7
Shop 3	17	87.5	12.5	...	16	70.6	23.5	5.9
Shop 4	25	83.3	16.7	...	24	56.0	40.0	4.0
Total	95	76.2	23.8	...	84	68.4	20.0	11.6
<i>Random sample*</i>								
Those buying graded beef	63	78.0	13.5	8.5	59	57.1	38.1	4.8
All others	193	50.5	46.7	2.8	180	21.8	71.5	6.7

*Includes some who did not designate the family income.

The majority of consumers in each income group in the random sample preferred some fat in the beef they bought, altho the amount preferred varied. There was a direct relationship between amount of income and preference for a moderate amount of fat (from $\frac{1}{4}$ to $\frac{3}{4}$ inch). The customers in the highest-income group preferred more fat, indicating that they liked a better quality of beef, perhaps because they were able to pay for it.

In the shop sample there was some variation in the amount of fat desired by customers, the preferences evidently being related directly to the quality of beef handled in each shop. In Shop 1, where all the beef handled was U.S. Choice, 87 percent of the patrons liked a moderate amount of fat in their beef, indicating that they were accustomed to it and regarded it as necessary to secure the quality of lean they desired. In Shop 4, where only about 25 to 30 percent of the beef handled was U.S. Choice or of comparable quality, only 56 percent of the customers desired the higher degree of finish.

Only 27 percent of the random sample liked a moderate degree of finish, whereas 68 percent of the shop sample liked this much finish. The marked difference in these percentages reflects the educational work of the retailer, the incomes of the consumers, and the higher quality of beef sold to the consumers in the shop sample. It also shows that all consumers do not want the same quality of beef.

Consumers in the random sample were sorted into two groups—those who bought graded beef and those who did not—in order to learn whether housewives purchasing graded beef were better versed on factors indicating beef quality and whether they preferred higher

quality than did those who did not purchase graded beef. Fifty-seven percent of those buying graded beef preferred a moderate amount of fat, while only 22 percent of the other group liked this degree of finish. Most of the consumers in all samples preferred some fat in their beef. Evidently they realized that some fat is necessary to produce a good flavor, to make the beef more tender, and to indicate quality in general.

This study shows a direct relationship between income and color of fat preferred, since the four income groups, from low to high, show percentages of 44, 62, 64, and 71 percent respectively preferring white fat, against 55, 32, 21, and 18 percent desiring yellowish fat. Small percentages of each group expressed no preference as to color of fat.

Over half of the low-income group preferred a yellowish fat. Many felt that it looked "richer" and more like butter. Perhaps many who liked yellow fat had been buying beef with fat of that color for a long while and had become accustomed to it, or it may well be that they had never had beef with a white fat.

The fact that so many in the low-income group and quite a few in the other groups preferred yellowish fat indicates that many consumers do not fully understand the characteristics that indicate quality in beef. Yellowish fat in beef is generally associated with carcasses coming from

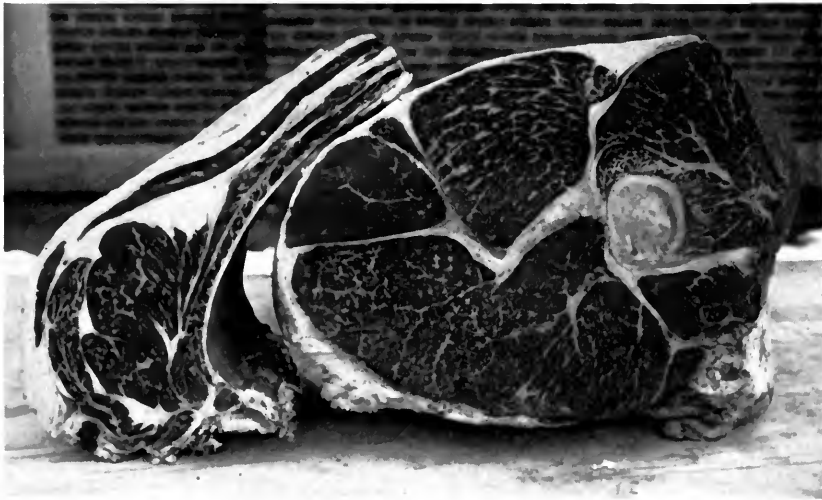


FIG. 8.—BEEF THAT WOULD APPEAL TO A DISCRIMINATING BUYER

The high degree of marbling and moderate amount of fat in these cuts show their very high quality. These cuts were from a grand champion carcass at the International Live Stock Exposition at Chicago. (*Photo courtesy American Aberdeen Angus Breeders Association*)

certain dairy breeds of cattle, scrub cattle, older cattle, old cows, or from cattle fed largely or entirely on pasture. One must realize that beef of low quality does not necessarily carry yellow fat and that beef of excellent quality may have slightly yellow fat.¹

In the shop survey an average of 76 percent of the customers (53 to 87 percent) preferred white fat, while only 24 percent preferred yellowish fat. Fifty-seven percent of the customers in the random sample showed this preference for white fat. Evidently the women in the shop sample were more aware that quality was indicated by the

TABLE 21.—CONSUMERS' PREFERENCES WITH RESPECT TO MARBLING IN BEEF: DECATUR CONSUMER SURVEY

Consumer groups	Number in sample	Preferred marbling	Did not prefer marbling
<i>Random sample</i>		<i>perct.</i>	<i>perct.</i>
\$100 or less monthly income.....	76	67.1	32.9
\$101 to \$200.....	108	67.6	32.4
\$201 to \$300.....	23	87.0	13.0
Over \$300.....	15	66.7	33.3
Total.....	222	69.4	30.6
<i>Shop sample</i>			
Shop 1.....	31	96.8	3.2
Shop 2.....	22	81.8	18.2
Shop 3.....	17	88.2	11.8
Shop 4.....	24	95.8	4.2
Total.....	94	91.5	8.5
<i>Random sample^a</i>			
Those buying graded beef.....	57	84.2	15.8
All others.....	179	63.1	36.9

^aIncludes some who did not designate the family income.

color of the fat and preferred the better quality. Undoubtedly this preference can be traced directly to the quality of beef handled in the particular shop patronized.

Since so many consumers preferred yellowish over white fat, the question arises whether too much emphasis is being placed on color of fat when grading beef. That beef with a yellow tinge in its fat is not necessarily inferior in palatability to beef carrying a white or creamy-white fat has been indicated by Illinois experiments. Less emphasis, therefore, might well be placed upon color of fat in beef grading.¹

Marbling in beef. Marbling, that is, the deposition of fat in the connective tissues which bind together the muscle fibers, is necessary to give beef its juiciness, flavor, and tenderness. The cut surface of beef having this intramuscular fat has a streaked or marbled appearance (Fig. 8). Marbling is an indication of grain feeding and of good quality. The preferences of housewives with respect to marbling in the

¹Effect of pasture on grade of beef. Sleeter Bull, R. R. Snapp, and H. P. Rusk. Ill. Agr. Exp. Sta. Bul. 475. 1941.

beef they buy would show whether they recognize that marbling is definitely a factor contributing to tenderness and flavor, and whether they prefer beef from quality grain-fed cattle.

Among the consumers in the random sample there seemed to be no pronounced correlation between marbling preference and income, altho 87 percent of the group with a monthly income of \$201 to \$300 desired marbling (Table 21). About two-thirds of each of the three other groups preferred marbling, while one-third did not want it. These results are practically the same as those obtained in a similar preference study in Vermont, where it was found that 65 to 87 percent of the groups of women contacted liked marbling in beef.¹

Nearly 92 percent of those housewives interviewed in the shop sample preferred marbling. There was no significant variation in preference for marbling between the several shops.

TABLE 22.—CONSUMERS' PREFERENCES FOR COLOR OF LEAN IN BEEF:
DECATUR CONSUMER SURVEY

Consumer groups	Number in sample	Preferred light-red lean	Preferred medium-red lean	Preferred dark-red lean
<i>Random sample</i>		<i>perct.</i>	<i>perct.</i>	<i>perct.</i>
\$100 or less monthly income	80	43.8	47.5	8.7
\$101 to \$200	115	42.6	50.4	7.0
\$201 to \$300	24	45.8	45.8	8.4
Over \$300	15	46.7	46.7	6.6
Total	234	43.6	48.7	7.7
<i>Shop sample</i>				
Shop 1	31	32.3	51.6	16.1
Shop 2	18	44.4	38.9	16.7
Shop 3	17	23.5	64.7	11.8
Shop 4	24	29.2	66.7	4.1
Total	90	32.2	55.6	12.2
<i>Random sample*</i>				
Those buying graded beef	61	36.1	57.4	6.5
All others	191	46.1	46.6	7.3

*Includes some who did not designate the family income.

In the random sample of consumers 84 percent of those buying graded beef and 63 percent of those not buying graded beef preferred marbling in the beef they bought. Apparently those women who purchased graded beef were better acquainted than the others with what is needed to insure quality in beef and desired a better quality product.

Color of lean. The color of beef does not in itself determine quality, but it serves as an excellent index to quality. The color of beef of the best quality varies from a light pink in baby beef to a bright cherry-red in cattle two to three years old. Beef of poorer

¹A study of quality demands in household buying of food. Margaret I. Liston. Vermont Agr. Exp. Sta. Bul. 415, page 28. 1937.

quality is usually dark red or purple, indicating that it comes from an old animal or that it has been cut for a long time.

The bulk of the consumers interviewed preferred beef with the lean either a light- or medium-red color (Table 22). The preference expressed by these women is in harmony with the preference for bright-red lean in beef reported in the Vermont bulletin mentioned above.

Information Consumers Wanted About Beef

The consumers interviewed were asked what additional information they would like which would help them buy beef to better advantage. The replies (Table 23) show that the higher the income the greater

TABLE 23.—KIND OF INFORMATION CONSUMERS WANTED CONCERNING BEEF: DECATUR CONSUMER SURVEY

Consumer groups	Number in sample	Information about grades	Information about cuts	Miscellaneous information	None
<i>Random sample</i>		<i>perct.</i>	<i>perct.</i>	<i>perct.</i>	<i>perct.</i>
\$100 or less monthly income..	69	7.3	20.3	2.8	69.6
\$101 to \$200.....	101	14.9	24.8	7.9	52.4
\$201 to \$300.....	20	15.0	30.0	10.0	45.0
Over \$300.....	10	30.0	40.0	10.0	20.0
Total.....	200	13.0	24.5	6.5	56.0
<i>Shop sample</i>					
Shop 1.....	29	20.7	6.9	13.8	58.6
Shop 2.....	17	23.5	11.8	17.7	47.0
Shop 3.....	15	.....	33.3	6.7	60.0
Shop 4.....	24	4.2	16.6	4.2	75.0
Total.....	85	12.9	15.3	10.6	61.2
<i>Random sample*</i>					
Those buying graded beef....	43	16.3	27.9	16.3	39.5
All others.....	158	12.0	23.4	3.8	60.8

*Includes some who did not designate the family income.

the proportion of consumers suggesting information they would like to have. More information about cuts was mentioned most frequently. That 61 percent of the shop sample made no comment suggests that the customers felt they had all the information they needed, or that they were satisfied with the beef they were getting and were not concerned about additional information.

SUMMARY AND CONCLUSIONS

Altho the sale of Government-graded beef and packer-branded beef has been increasing, there have been no data available showing the information that consumers and retailers have about such beef. Since such information would be valuable to all who are interested in promoting the sale of quality beef, the Illinois Station carried on a study in 1938 and 1939 to learn what grades and brands of beef were handled by Illinois retailers, what the retailers thought about graded beef and branded beef, what consumers knew about beef, and what could be done to help consumers buy beef to better advantage.

The first part of the study was carried on in the summer and early fall of 1938. Four hundred retail meat dealers (223 in Chicago and suburbs and 177 downstate) were interviewed to learn their experiences in handling graded and branded beef and their opinions of both. They were also asked to report their methods of purchasing beef and what, in their opinion, were the attitudes of wholesale-beef salesmen and of customers toward graded and branded beef. (*Pages 345 to 359*)

It was felt, however, that the results of the 1938 study should be checked against data from shops that were as nearly as possible a random sample. In 1939, therefore, several sections of Chicago were selected and every retail meat shop in those sections was visited. Seventy interviews were obtained, and all questions asked in the first survey were asked again. Data from this sampling substantiated the data from the 1938 study. (*Pages 359 to 368*)

The third part of the study was undertaken to learn what quality of beef was handled thruout an entire market area. Decatur was selected as a representative Illinois urban community, and a survey was made there in 1939. With the exception of the stores of one corporate chain, all retail stores that were cutting fresh beef were visited and 159 interviews obtained. The retailers' opinions of graded beef and branded beef were again sought, and questions similar to those used in the first two parts of the study were asked. (*Pages 368 to 373*)

At the same time that the survey of the Decatur markets was being made, 351 consumers were interviewed in the city in order to learn in some detail their attitudes toward graded beef and branded beef. Ninety-five of the consumers were interviewed in four shops carrying graded beef and 256 in a house-to-house canvass. The experiences of these women in buying graded and branded beef, and their opinions and knowledge of each, were reported. (*Pages 374 to 388*)

The retailers outside the Chicago area had had limited opportunity to become acquainted with graded beef and hence handled relatively little of it. They reported that packer salesmen had pushed the sale of branded beef but had not encouraged the purchase of graded beef.

Most of the retailers handling graded beef carried it because they thought its quality was dependable and uniform; those handling branded beef carried it because they thought that its quality was dependable and uniform and that it was cheaper than graded beef, altho in the 1938 survey about half of those interviewed questioned the dependability of the quality of packer brands. Nearly all retailers handling graded beef felt that Government grading was dependable. Most of the consumers buying graded beef wanted it because they believed it was tender and that they could depend on its quality. Most of the consumers who bought branded beef chose it because they thought that it was tender and had a good flavor.

Few of the retailers interviewed made use of the daily price reports issued by the Agricultural Marketing Service. Numerous instances of their paying more than the market price for their beef were observed both in Chicago and downstate. Evidently many retailers would find it profitable to pay more attention to wholesale-beef prices.

A majority of both retailers and consumers felt that the sex of the animal should be stamped on the beef.

Light-weight carcasses—those weighing between 338 and 412 pounds—were preferred by most retailers.

That some graded beef was sold to consumers in every income class indicates that the demand for quality beef is not restricted to the higher-income classes. There was, however, a direct correlation between amount of fat (which is an important indication of quality in beef) that consumers wanted and amount of income; consumers having the highest incomes preferred a goodly amount of fat on beef. Most consumers wanted the lean of beef to be light red or medium red, and a high percentage wanted marbling.

A surprisingly high percentage (about 35 percent) of consumers interviewed claimed to prefer yellowish fat to white fat. Experiments at the Illinois Station and at other stations have shown that beef having a yellowish tinge in its fat is not necessarily inferior in palatability to beef having a creamy-white fat if both have come from grain-fed animals of good beef breeding. With that in mind and since this survey has shown that the prejudice against yellow fat is perhaps not so strong as has been thought in the meat trade, it seems that less emphasis should be placed on color of fat in beef grading.

All consumers interviewed in the Decatur survey were asked to suggest any further information that would help them buy beef to better advantage, but over half had no suggestions to make. About 25 percent wanted more information about beef cuts and about 13 percent more information about grades.

The Decatur survey showed definitely that most women purchasing beef know very little about either the grades or brands of beef. Only about one-fifth of those interviewed could name any Government

grades, and very few could name any brands even tho most of them purchased branded beef. Most of them did not know whether they purchased graded beef, and more than half did not know what class of beef they bought—whether steer, heifer, or cow.

All the surveys revealed that confusion usually resulted from the large number of packer brands used. Not only were most of the consumers unable to distinguish between them, but most of the retailers did not understand their significance. Many retailers felt that too many brands were being used.

Packers have not attempted to explain to the general public, on any comprehensive scale, the differences in their brands; neither has the information given out by the Government reached the rank and file of consumers. It is evident that active educational work is needed if consumers and retailers are to have the information they need in order to buy beef intelligently. Consumers especially need more information about what constitutes quality. They need to know more about the different Government grades and packer brands and specifically what they stand for. Only when they are well informed about such matters will they get the quality they want and consistent value for their money.

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How much do Illinois consumers and retailers know about quality in beef?

On what information and preferences do consumers base their buying?

Do they know about Government grading, and do they know what the various packer brands stand for?

Would consumers prefer to purchase by Government grade if opportunity were given them to do so?

What can be done to help consumers buy beef more intelligently?

These are the questions which the study reported in this bulletin attempts to answer.

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