



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
<http://ageconsearch.umn.edu>
aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

Beef: Graded and Ungraded in the Meat Counter

Phillip R. Kaufman and Clark R. Burbee
(202) 447-6363 (202) 447-7330

users perceive distinct quality differences within one assigned grade. In this case, the addition of one or more grade categories to coincide with the users' classification will enhance marketing and pricing efficiency.

To be effective, grades must be based on factors that are obvious to buyers and sellers as they negotiate price. If desired, buyers and sellers can verify product classification through personal inspection, decreasing the potential areas of disagreement.

Finally, to avoid confusion, the grades assigned to a commodity must convey the same information to all who use them.

Grades May Be Revised

Since the early 1900's, when most standards were established, agricultural commodities and the marketing system have undergone significant change. Ideally, grades and standards keep pace through procedures established for their review, and, if warranted, their modification.

Product evolution, a shift in consumers' preferences, or development of new measurement techniques can provide the impetus for proposals to modify commodity grades and standards. Although consumers participate in hearings when USDA proposes such revisions, it is usually agricultural producers or associations who initiate requests.

USDA is currently considering revising the grading system for pork after research found significant differences in the yields of carcasses graded as U.S. No. 1 (see related article in this issue). These yield differences were greater than those between the highest and lowest grades under the present system, pointing to the need for one or more additional grades.

USDA has submitted for public comment a proposal to expand the number of grades to capture important differences. If, after considering all the relevant issues, USDA determines that a grade change would improve the marketing system, a proposal will again be submitted for public comment. The final decision will reflect information provided to the Department during the comment period.

Changing consumer food preferences and competition for markets are motivating food retailers to adopt new sales practices for fresh beef. Many supermarkets have found a growing market among price and health conscious consumers for leaner meats than what USDA grades as Prime and Choice. Retailers are increasingly offering these leaner, and often less expensive, cuts and labeling them with generic and store grade names, rather than USDA grade designations.

Economic Research Service (ERS) economists recently completed a preliminary analysis of beef quality labeling practices by supermarkets to determine the extent of use of USDA grades and names. They found that while 43 percent of U.S. supermarkets use only USDA Prime or Choice designations for fresh beef cuts of steaks and roasts, 44 percent use other names. The remainder offer both store and USDA grades.

Quality Grading of Beef

Beef naturally varies in quality. Carcasses well marbled with fat tend to be juicier, more tender, and palatable than lean beef. Some means of categorizing beef into quality levels reflecting consumer preferences and a common terminology is essential to commercial marketing.

In 1927, USDA adopted the first quality grade standards for carcass beef. Grade standards are developed in cooperation with industry and are periodically revised to reflect changes in market

demands. The last revisions in beef grades were implemented in 1976.

Grading is voluntary and available to packers on a fee basis. At present, about 55 percent of all commercial carcass beef is USDA-graded for quality, compared to about 65 percent in 1970 and 45 percent in 1975 (table 1).

Grading is distinct from meat inspection, another USDA function which assures the safety of meat for consumption. All carcasses and meat products must be inspected at the slaughterhouse.

Carcasses are graded into one of eight classes depending upon the age of the animal, degree of marbling, and other factors. Packers generally request grading only of carcasses of younger cattle primarily raised for meat on large quantities of feed grains. These carcasses typically qualify for the four highest grades: Prime, Choice, Good, and Standard. In recent years, about 90 percent have qualified for Choice, 5 percent for the Prime, and 5 percent for the other grades.

Supermarkets may purchase either beef graded by USDA or that which is not. Cuts from graded carcasses can be labeled and promoted with the designated USDA grade at the retail level. Stores can also use other terms to identify the quality of cuts from either USDA-graded or ungraded carcasses.

With growing public interest in leaner meats, many supermarkets are now purchasing carcasses with less marbling than in USDA Choice. Cuts from these ungraded carcasses are given a generic

Table 1. USDA Grades About Half of Commercial Beef Production

	Commercial production graded	Quality grades		
		Prime	Choice	Good and standard
Percent				
1970	64.9	6.8	79.6	13.6
1975	43.4	5.1	77.3	17.6
1980	56.5	5.9	89.0	5.1
1983	54.7	3.9	92.0	4.1

Source: Agricultural Marketing Service, USDA

quality designation such as “lean beef” or a store label. Because ungraded carcasses are often available at a lower wholesale price, retailers can offer leaner beef at a savings compared to USDA Choice.

Use Categories Identified

The ERS analysis was based on data on the use of USDA and other quality designations for fresh beef steaks and roasts obtained from a nationwide survey of supermarkets conducted in 1982. Information for over 10,000 fresh beef items was collected from 542 supermarkets in 28 cities.

Beef steaks and roasts were identified as USDA Prime, USDA Choice, and “other”, depending upon the grade label used by the supermarket. “Other” includes generic, store labels, and the infrequently used, USDA Good.

The seven possible combinations of Prime, Choice, and other grades used by supermarkets were grouped into four categories that would provide the most meaningful distinctions among labeling practices:

- “Prime” includes supermarkets offering USDA Prime beef either exclusively or in combination with beef having any other quality designations.
- “Choice” identifies supermarkets offering only USDA Choice.
- “Other or store label” consists of supermarkets offering other than USDA Prime or Choice beef. It includes the use of generic and store names and any beef cuts labeled USDA Good.
- “Choice with other or store label” identifies stores which offer USDA Choice beef in combination with beef found in the “other or store label” category.

Grade Use Varies Among Stores

ERS researchers compared the use of different beef quality names used by supermarkets in relation to such factors as store type, ranking, location, format, regional location, annual sales class, selling area, household income, and meat department services (table 2).

Table 2. Use of Beef Grades Varies by Supermarkets

Supermarket characteristics	Beef grade designations			
	Prime	Choice	Other or store label	Choice w/ other
Percent of supermarkets ¹				
Supermarket Type²				
Chain ³	7.0	38.7	44.6	9.7
Independent	6.0	40.3	43.8	9.9
Ranking (in a market)				
Among top six firms	6.1	40.1	45.0	8.8
Other firms	9.1	38.2	41.8	10.9
Store Location				
Central city	4.6	39.2	47.0	9.2
Suburban	8.9	39.1	41.5	10.5
Store Formate				
Conventional ⁴	7.1	38.0	44.0	10.9
Superstore/combination ⁵	3.8	49.4	41.8	5.0
Ltd. Assortment/Warehouse ⁶	7.2	21.4	71.4	0.0
Region (U.S.)				
New England	9.5	4.8	78.6	7.1
Mid Atlantic	8.8	46.5	41.2	3.5
South Atlantic	4.6	56.9	23.1	15.4
West North Central	16.0	46.0	28.0	10.0
East North Central	4.3	54.8	33.3	7.5
West South Central	4.8	37.1	41.9	16.1
Mountain	1.9	28.9	61.5	7.7
Pacific	4.7	14.1	65.6	15.6
Annual Sales Volume (\$ mil.)				
Less than 4.0	5.8	39.3	43.9	11.0
4 - 7.9	6.9	39.6	44.2	9.2
8 - 11.9	5.6	37.1	46.1	11.2
12.0 and greater	10.2	40.7	42.4	6.8
Selling Area (square feet)				
Less than 10,000	8.5	38.5	43.8	9.2
10,000 - 29,999	5.6	39.2	44.2	11.0
30,000 or more	10.0	42.0	46.0	2.0
Household Income Level				
Stores in low-income areas	2.1	37.5	47.9	12.5
Stores in non-low income areas	9.0	38.9	40.2	11.9
Meat Counter⁷				
No service	6.3	39.0	45.1	9.6
Service	8.7	40.2	41.3	9.8

¹ May not add due to rounding. ² Supermarkets are grocery stores having annual sales of \$1 million or more. ³ A firm is classified as a “chain” if it owns 11 or more supermarkets. Independent firms own 10 or fewer supermarkets. ⁴ Traditional supermarkets offering food products as well as laundry detergents, paper products, and health and beauty aids. ⁵ Offers a wide variety of nonfood products such as prescription drugs, clothing and hardware, in addition to food items. ⁶ Offers less variety and may not carry fresh meat, produce, or other perishable products. ⁷ Fresh meat is cut and wrapped to customer specification.

The analysis reveals that more suburban supermarkets offered prime quality beef (8.9 percent) than central city supermarkets (4.6 percent). "Other or store label" quality names were used by 47 percent of central city stores compared with 41.5 percent of supermarkets located in suburban areas. Since suburban areas are more likely to have higher household incomes, a greater variety, including more expensive cuts of meat, may be offered by supermarkets there.

Comparisons were also made of supermarkets in low-income neighborhoods with those in other areas of the city. The share of supermarkets offering Choice beef was almost identical in these two groups, while those selling "other or store label" was slightly greater in low-income neighborhood stores, 47.9 percent versus 40.2 percent. The greatest difference was for USDA Prime which

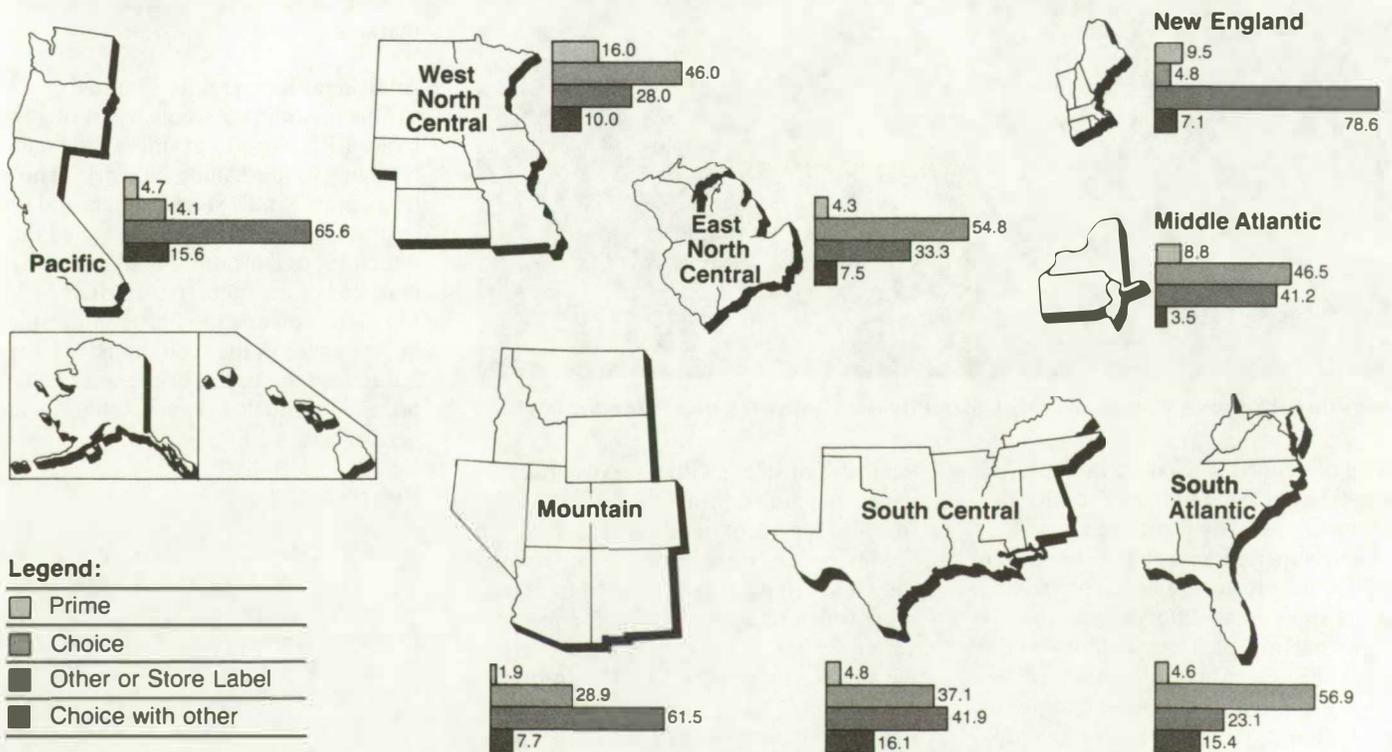
was offered in only 2.1 percent of stores in low-income neighborhoods, compared to 9 percent in other areas.

In recent years, innovations in the supermarket industry have led to the development of several store formats, including combination food and drug stores and limited assortment and warehouse stores. Limited assortment and warehouse stores were established as an alternative to conventional grocery stores and the emerging "superstores" which offer food products along with a wide variety of nontraditional items including automotive equipment, drugs and cosmetics, and housewares. Warehouse stores are characterized by reduced services, such as no bagging and carryout, and less variety. By reducing selection, these stores are also able to place greater emphasis on selling merchandise purchased at a discount from manufacturers.

Only 21.4 percent of warehouse supermarkets sold USDA Choice beef while 71.4 percent offered only beef with other or store labels. In contrast, 38 percent of conventional format stores offered USDA Choice beef exclusively and another 44 percent sold only other or store label beef. The greater reliance on non-USDA quality names in warehouse stores is in keeping with their focus on economy and less variety of products and services.

Most supermarkets offered either beef with the USDA label or with a store or generic quality designation. Almost 50 percent of super/combination stores and 38 percent of conventional stores sold only USDA Choice. Almost 42 percent and 44 percent, respectively, offered other or store labels only. Only 11 percent of conventional supermarkets and 5 percent of super/combination stores offered both USDA Choice beef and store

Figure 1. Supermarket Use of Beef Grades Differs Regionally





Survey finds 43 percent of stores sell only USDA Prime or Choice, 44 percent use other labels.

brand or generic labeled cuts. These stores may provide both as a service to consumers desiring leaner beef.

Many supermarkets sell fresh meat cut and wrapped to customer order. The results show small differences in the labeling practices of stores with or without such a service. About 45 percent of stores without a service meat counter offered other or store labeled beef, compared to 41 percent for stores offering meats to customer specification. Almost

9 percent of stores with a service meat counter included Prime beef, compared to about 6 percent in other stores.

Measures of store size based on annual sales and selling area were used to determine which supermarkets offer a greater variety of beef quality. Among the largest stores, those with 30,000 or more square feet, USDA Prime cuts were found in 10 percent. Similarly, 10.2 percent of stores with annual sales of \$12

million or more—the top sales group—sold Prime beef.

The greatest differences in beef quality labeling practices were found on a regional basis. Fifty-seven percent of all supermarkets in the South Atlantic region sold Choice beef exclusively, compared to only 4.8 percent of New England stores. A much greater proportion of New England supermarkets offered other or store label beef—78.6 percent, compared to 23.1 percent of South Atlantic stores. Over 15 percent of supermarkets in the South Atlantic, South Central, and Pacific regions offered Choice beef together with other or store labels. USDA Prime was available in 16 percent of the West North Central region, compared to only 1.9 percent of Mountain region stores.

Important factors affecting regional marketing practices may include: tradition of meat consumption, proximity to beef production areas, consumer knowledge about beef quality (reliance on USDA grades as an indicator of quality), and degree of competitiveness among supermarkets.

Additional Research is Planned

This preliminary study is part of a larger ERS effort to examine the rapidly changing food retailing industry. The introduction of new store formats and low-cost warehouse stores has affected the structure, organization, and marketing practices of the industry. Further research is planned to better understand how changes in the food industry have influenced the use of beef grades and price differentials between grades in supermarkets.

References

- Burbee, Clark R. "Beef Grade Alternatives." *National Food Review*, NFR-19, (Summer 1982), pp. 17-21.
- Duewer, Lawrence A. *Changing Trends in the Red Meat Distribution System* AER-509. Washington, D.C.: U.S. Department of Agriculture, Economic Research Service, February, 1984.