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BEEF/PORK VARIETY MEATS: I. EFFECT OF PROMOTION ON RETAIL SALES AT KANSAS FOOD STORES

by Joe W. Koudele, Arlin M. Feyerherm, and David E. Schafer



Research Report #7

Department of Agricultural Economics

Kansas State University

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I. EFFECT OF PROMOTION ON RETAIL SALES AT KANSAS FOOD STORES¹

by

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INTRODUCTION

The Nature of Variety Meats

Edible offals are by-products of meat slaughtering plants. Economically, the most valuable by-products include variety meats, edible tallow, and lard. Variety meats are primarily "organ" meats. For a 1,000 lb. steer, the yield of variety meats averages about 27 pounds.¹ The four major uses for variety meats are butcher products, pharmaceuticals, pet foods, and sausages.

Variety meats commonly sold in U. S. retail food stores as "butcher products" include beef and pork tongue, heart, liver, kidney, sweetbread, beef oxtails, and stomach (beef "tripe" and pork "maws"). Lamb variety meats are generally not available. A few large stores will stock pigs feet, ears, tails, and chitterlings (intestines). Products may be sold in "fresh" (thawed) or frozen form (pre-packs).

Reasons for Study

In 1980, U. S. exports of variety meats were valued at \$300.1 million or 17.6% of the combined export value of hides and skins, variety meats, and tallows and greases. These important by-product exports added about \$60 per head to the value of a slaughter steer.² The share added by variety meat exports would be around \$10.50 per head.

Variety meats averaged 10.5% of the value of U. S. exports of meat animals, meat, and meat products during 1974-83. Variety meat exports increased in value from \$157.6 million in 1977 to \$306.4 million in 1982 and then declined to \$260.6 million in 1983.³

From 1970 to 1985, the U. S. dollar increased 70% in value against other major foreign currencies.⁴ Consequently, U. S. exporters had more difficulty selling U. S. products abroad at a profit. Among U. S. meat exports, variety meats are particularly important. They averaged 152,784 metric tons annually or 55.3% of total meat exports during 1968-82.⁵

The United Kingdom is the world's largest importer of edible offals, followed closely by France. Other large importing countries of the EEC are West Germany, Netherlands, and Belgium/Luxemburg. Major countries of origin for UK imports were the USA, New Zealand and Intra-EC. UK imports

¹A Steer's not All Steak. Beef Industry Council, National Livestock and Meat Board, 1975, p.2.

²The Future for Beef, A Report by the Special Advisory Committee, National Cattlemen's Association, 1982, p. 14.

³Livestock and Meat Statistics, USDA, Suppl. for 1976, p. 146; Suppl. for 1980, p. 152; 1983, p. 156.

⁴U. S. News and World Report, January 28, 1985, p. 55.

⁵Agricultural Statistics, USDA, 1983, p. 312.

from the USA doubled between 1974 and 1978 and then declined in the early 1980s, as prices of edible offals fell.⁶

Annual per capita consumption of variety meats in the United States rose from 4.69 lbs. in 1972 to 5.66 lbs. in 1977 and then declined to 4.21 lbs. in 1982 (Table 1). Thus, when both domestic consumption and exports of variety meats declined, available supplies in cold storage increased and more had to be diverted to lower-value uses, such as pet foods.

The current major regional markets for consumption of variety meats in the United States are on the east and west coasts, with ethnic groups being the major users. Per capita consumption in the midwest is relatively low.⁷

Because of depressed foreign market outlets, midwestern meat processors have shown increased interest in developing U. S. domestic markets. Improved domestic demand for variety meats, however small, would benefit meat processors and livestock producers of both beef and pork.

Certain variety meats could provide nutritious, low-priced substitutes, derived from red meat animals, to compete effectively against low-priced poultry.

New recipes and popular new easy methods of home food preparation, including use of crockpots, increased demand for other previously low-priced cuts such as brisket, flank, ribs, and skirt meats. Similar techniques may also increase demand for variety meats and contribute to higher dollar returns to livestock producers.

Objectives of Study

This study had two objectives:

1. To measure the effects of promotional and merchandising strategies upon food store sales of selected beef/pork variety meats.
2. To obtain information on consumers' acceptance and preferences for beef/pork variety meats, consumers' current knowledge about variety meats (health/nutrition aspects and food preparation), consumers' attitudes toward their use, product usage, and the relationship of these factors to certain population demographics.

Research results are presented in two reports: Beef/Pork Variety Meats: I. Effect of Promotion on Retail Sales at Kansas Food Stores (Objective 1 - Research Report #7), and Beef/Pork Variety Meats: II. Consumer Preferences, Attitudes Toward, and Product Usage (Objective 2- Research Report #8).

⁶A study of The UK Market for Edible Offals, Centre for European Agricultural Studies, pp. 3-5.

⁷Statement by Marc Gustafson, U. S. Meat Export Federation (telephone conversation with senior author on Jan. 29, 1985).

REVIEW OF LITERATURE

There have been few economic studies of the market for edible offals, including variety meats. For many years in this country, variety meats were considered "inferior" for human consumption, were not available in food stores, and were used primarily for pet foods. Demand in U. S. domestic food markets has been small. The best outlets available to U. S. meat processors were foreign markets, particularly the United Kingdom and other western European countries. Competitive pricing policies also helped U. S. meat exporters.

Basic research on the composition and caloric, vitamin, and mineral content of major variety meats revealed their high nutritional value.¹ The health food movement also stimulated some usage of edible offals (liver and glands).

The National Livestock and Meat Board hoped to stimulate U. S. domestic "household and institutional" demand for variety meats by publishing recipes and instructions on product preparation. Recipes were prepared for heart, liver, kidney, sweetbread, tongue, brains, and tripe.²

A purchasing guide for variety meats was prepared cooperatively by the Texas Agricultural Experiment Station, U. S. Department of Agriculture, and the National Livestock and Meat Board for the U. S. Meat Export Federation in its efforts to expand foreign markets. Uniform and minimum product specifications for U. S. variety meats were established. The purchasing guide can be used by foreign buyers and serves as a sales tool for U. S. meat suppliers.³

A detailed economic analysis of the United Kingdom market for edible offals during 1974-82 provides helpful background information. The study a) provides an analysis of available statistics on supply, demand, prices and consumption; b) discusses day-to-day practical problems of the UK meat trade in balancing supply and demand and the physical and logistical problems of handling edible offals; and c) summarizes trends and characteristics of the market for each species. A general promotional campaign on edible offals in the UK was suggested, emphasizing the nutritional, health, and low value (price in USA) characteristics of these products over other meats and processed meat products. This proposal would try to restore more balance between greater available supplies and consumer demand.⁴

¹The Science of Meat and Meat Products, 1971.

²Recipes for Variety Meats, 1974.

³Variety Meats from the U.S.A - A Purchasing Guide, 1979.

⁴A Study of the UK Market for Edible Offals, 1983.

A study by the USDA, based on the 1977-78 Nationwide Food Consumption Survey, analyzed cross-section data on at-home U. S. consumption of red meats, poultry, and fish. It provides the only available information on domestic variety meat consumption as influenced by demand responses of particular socio-economic and demographic groups.⁵

Weekly per capita at-home consumption of variety meats in the United States during 1977-78 averaged 0.09 pounds or 4.68 pounds per year. By income quintile, it was: I (0.18 lb.), II (0.12 lb.), III (0.07 lb.), IV (0.05 lb.), and V (highest) (0.04 lb.). By season, it was: fall (0.10 lb.), winter (0.09 lb.), and spring and summer (0.08 lb.). By household size, it was: 1 member (0.16 lb.), 2 members (0.10 lb.), 3 members (0.08 lb.), 4-5 members (0.07 lb.), and 6 or more members (0.09 lb.). By race, it was: black (0.32 lb.) and nonblack (0.05 lb.). By region, it was: Northeast (0.07 lb.), North Central (0.08 lb.), South (0.12 lb.), and West (0.06 lb.). By urbanization, it was: central city (0.15 lb.), suburban (0.06 lb.), and nonmetropolitan (0.07 lb.).⁶

The decline in U. S. per capita consumption of beef from the peak of 94.4 lbs. (retail weight) in 1976 and annual increases in per capita consumption of poultry have caused great concern in the beef industry. Consequently, several market research studies were commissioned by that industry. One study analyzed the consumer market for meat products.⁷ Data suggest that a consumer segmentation, based on general attitudes influencing food purchase decisions, could be useful in targeting marketing efforts. Five segments of consumers were described. This research provides background information useful in studying consumer attitudes toward and usage of variety meats.

RESEARCH DESIGN

Promotion took place in eight retail stores of one food chain in three test markets (Salina, Topeka, and Wichita, Kansas). Two of the stores in Topeka were conventional supermarkets. The other six stores were warehouse stores. All stores were equipped with electronic scanners at customer checkout stations.

A simple "before-after" experimental research design was used and involved only "test" stores. There was no control group. However, weekly data on purchases of variety meats by many food stores from a wholesale supplier provided a type of control and enabled comparisons to be made with the test store data.

There were three eight-week test periods, beginning in late September, 1985 and ending in mid April, 1986. Dates of the test periods (TP) were:

⁵Consumer Demand for Red Meats, Poultry and Fish, 1982.

⁶Ibid, pp. 27-37.

⁷The Consumer Climate for Meat Products, 1983.

- TP-1 (weeks of September 25 through November 13, 1985, ending before Thanksgiving)
- TP-2 (weeks of December 4 and 11, 1985, a two-week break for Christmas, and the weeks of January 8 through February 12, 1986)
- TP-3 (weeks of February 19 through April 9, 1986)

A week commenced on Wednesday and ended on Tuesday.

During Test Period 1 (TP-1), there was a minimum of promotion and no price specials. During TP-2, there was greater promotion including newspaper advertising (in conventional supermarkets) and some price specials (see Table 2). During TP-3, there was continued promotion, product sampling, and consumer interviewing.

Weekly retail prices were uniform for the same variety meat item in all stores in TP-1 but varied somewhat in TP-2 and TP-3 (see Table 2). Prices for variety meats and any price specials were set by the Director of Meat Operations of the food chain.

Promotional and merchandising strategies tried were: 1) a special clearly designated display section for variety meats; 2) point of purchase (POP) price signs; 3) colored wall posters; 4) POP nutritional information and recipes; 5) newspaper advertising at two conventional supermarkets; 6) in-store advertising at all stores; 7) price specials; 8) personal salesmanship, mainly by store meat department personnel; and 9) product taste samples. Specific strategies were suggested by industry consultants.

It was not possible, given the research design, to measure the effect of any individual promotional or merchandising strategy on sales of variety meats. All strategies may have been used at the same time and exerted a "collective" effect.

Special displays of approximately uniform size were set up for variety meats in the meats section of each store. Products available included eight beef items (liver, kidney, heart, tongue, tripe, sweetbreads, brains, and oxtails) and four pork items (liver, maws, brains, and pigs feet). Only "fresh" (thawed) variety meats were offered for sale in the meats section. Vacuum-packed trays of liver were offered in some stores.

It was planned originally to obtain weekly consumer purchases data (lbs.) of beef and pork variety meats, by items, for individual stores, by scanning. However, this was not practical for some items because of unforeseen problems in scanning. Not all variety meats could be passed over the electronic scanner because of the type of package or container. Therefore, weekly sales (lbs.) of different variety meats were determined by the "inventory method" using this formula: beginning inventory on the first day (Wednesday A.M.) of a given week plus the week's purchases less the week's reworks (loss) less the ending inventory on the last day of the week (Tuesday P.M.).

Promotion was monitored closely and individual store data, by weeks of each test period, were picked up regularly by the Project Leader from Kansas State University. Store Meat Department Managers kept records for the market test.

Seasonal purchases data (lbs.) of variety meats, by items, from the wholesale supplier (Associated Wholesale Grocers, Kansas City Division) for test and nontest retail food stores were obtained for 1984, 1985, and part of 1986.

During the third eight-week test period (TP-3), information was obtained from consumers on their preferences for beef/pork variety meats, knowledge about health/nutrition aspects and food preparation, attitudes (including prejudices) toward use of variety meats, and product usage. Data were obtained by in-store interviewing of a sample of "meat shoppers" in test stores. Two-person teams of trained interviewers (Home Economists, Pork Council Women, CattleWomen, and others) were stationed at each food store during alternate weeks during a busy four-hour period on heavy customer days and distributed variety meat samples, recipes, and nutritional information.

RESULTS OF THE PROMOTION

Price Specials on Variety Meats

Table 2 shows the retail prices of beef/pork variety meats in test period 1 (TP-1), when prices charged by all eight food stores for each variety meat item were the same. It also shows price discounts for selected variety meats and the number of stores offering such discounts, by week, in test periods 2 and 3.

During TP-2, all stores ran "price specials" on beef heart, beef sweetbreads, and pigs feet during weeks 3 and 4. Only one or two stores had price specials on other variety meat items during TP-2. The pattern was to have price specials for two consecutive weeks.

During TP-3, there was more price discounting. Except for beef heart, for which only two stores gave price discounts, all eight stores had the same price specials during a given week on other variety meat items. Price discounts ranged from 4 to 20 cents per pounds off the regular price.

Relative Importance of Meat Department Sales

Table 3 shows average weekly dollar sales of the meat department and of the store and meat department sales as a percentage of store sales, by test period and by retail food store.

Data are shown for individual stores in each of the three test markets (Salina, Topeka, and Wichita). Approval was obtained from the Director of Meat Operations of the food chain to use store code numbers to show individual store data. Elapsed time between data collection and

publication of the research results has removed its "confidential" value to competitors.

Meat department sales were an important percentage of store sales in all stores and averaged 17.2% in TP-1. The percentage of meat department sales was relatively constant in each of three test periods.

Relative Importance of Variety Meat Sales

Table 4 shows average weekly dollar sales of beef/pork variety meats and of the meat department and variety meat sales as a percentage of meat department sales, by test period and by retail food store.

Variety meat sales ranged from 0.2 to 1.4% of meat department sales and averaged 0.65% during TP-1. Variety meat sales were consistently important (in terms of a percentage of meat department sales) in five stores (S8, T2, T6, W18, and W20). Sales of variety meats were least important in T12, a store with large dollar sales in the meat department (Table 4.)

Average Weekly Sales in Pounds of Variety Meats

Table 5 shows average weekly sales (lbs.) of beef/pork variety meats, by item and total, by test period and by retail food store.

During the market test, some items (beef kidney, beef tripe, beef sweetbreads, beef brains, pork maws, and pork brains) were offered for sale regularly for the first time. In most stores, the usual practice was to stock only the major items--beef liver, beef tongue, beef oxtails, pork liver, and pigs feet.

Average weekly sales (lbs.) of total variety meats increased in every store from TP-1 to TP-2. However, while sales of some items increased, those of other items decreased. Items that decreased most frequently were beef kidney and beef brains. Average weekly sales of beef liver were greater in TP-2 in seven of eight stores. Average weekly sales of total variety meats were up by a larger percentage from TP-1 to TP-2 in Topeka stores than in the other two test markets. Largest gains were achieved in two conventional Topeka supermarkets.

Average weekly sales of some items like beef and pork brains were very small in most stores in all test periods. In one store, it was reported that these items were used more for "fish bait" than for human consumption.

Table 6 shows the sum of average weekly sales (lbs.) of beef/pork variety meats, by item and total, for eight retail food stores in three test markets, by eight-week test period. It provides the best indication of the overall success of efforts to promote variety meats. Retail sales of total variety meats in test stores increased 9.6% from TP-1 to TP-2 compared to an increase of only 6.0% in wholesale purchases by all stores associated with AWG (K.C. Division) during the corresponding time periods of 1985-86 (Table 9). Sales of five beef items increased: heart (31%), liver (28%), sweetbreads (20%), tripe (15%), and oxtails (10%). Efforts

to increase sales of beef kidney, beef tongue, beef brains, and the four pork items were largely unsuccessful.

Average weekly sales (lbs.) of total variety meats declined 19.6% from TP-2 to TP-3 despite continued promotion (Table 6). Sales of all items except beef brains declined. However, this was a normal seasonal decline since it was matched by a 19.1% decrease in wholesale purchases by all AWG stores during the corresponding time periods, 1985-86 (Table 9). TP-3 included the busy Easter holiday period, and meat departments emphasized traditional Easter items--hams, eggs, and turkeys. It was observed in some stores that display space in the meats section allocated to variety meats for the market test was reduced temporarily in order to stock and promote faster-moving Easter items. If TP-3 is compared to TP-1 the results show that total variety meat sales in test stores declined 11.9%. This compares with a 14.3% decrease in wholesale purchases by all AWG stores (Table 9), indicating that promotional efforts had a positive effect on sales.

Average Weekly Sales (Pounds and Dollars) of Variety Meats Per 1,000 Customers

Table 7 shows average weekly sales of beef/pork variety meats and customer counts, by test period and by retail food store.

Sales of variety meats in a given week depend primarily on the number of store customers. Therefore, an accurate way of adjusting for this factor is to show sales in pounds or dollars per 1,000 customers. Average weekly customer counts for most stores tended to decline from TP-1 to TP-3.

During TP-2, variety meat sales were higher in seven of eight stores. They ranged from 11.5 lbs. per 1,000 customers in a Topeka store to 91.9 lbs. per 1,000 customers in a Wichita store. In the same two stores, variety meat sales ranged from \$10.18 per 1,000 customers to \$76.98 per 1,000 customers. These extremes reflect differences in consumers' preferences because of different ethnic and other socio-economic characteristics of the individual store's customers.

Average Weekly Loss of Variety Meats by Stores

Table 8 shows the average weekly loss of beef/pork variety meats and loss as a percentage of average weekly sales of variety meats, by test period and by retail food store.

Variety meats are received by stores in frozen form from the wholesale supplier. They are thawed and placed in the display case to provide store customers with an adequate selection of each item and in anticipation of consumer demand. Most variety meats have a shelf life of only 2-3 days at most. Nothing hurts meat sales more than poor product appearance. When meats no longer look attractive, they are removed from the case. There are no other uses for such variety meats, except as give-away pet foods or fish baits. The store suffers an economic loss.

Loss was especially great for some items. In this market test, stores tried to keep the display case reasonably well stocked with each item each day of the week. Consequently, if sales were slow, loss might be great. A factor minimizing loss at some stores was the management practice of not putting out too many packages of variety meats at one time and stocking the case more frequently. As shown in Table 8, loss was especially heavy at two food stores.

Seasonality of Wholesale Purchases of Variety Meats by Stores

Table 9 shows wholesale purchases of selected beef/pork variety meats by all retail food stores from Associated Wholesale Grocers, Inc. (Kansas City Division) in 1984-85 and 1985-86, by test period. It is based on the data of Table 10. This wholesaler supplied variety meats for many food stores, including those in the market test. Some variety meat items were supplied by independent meat packers. Wholesale purchases increased from TP-1 to TP-2 and then declined in TP-3 in both 1984-85 and 1985-86 (Table 9).

The data show the seasonality of purchases by retailers and, in turn, by consumers. The 1977-78 Nationwide Food Survey showed that weekly per capita at-home consumption of variety meats was highest in the fall. It declined slightly in winter and was lowest in the spring and summer.⁸

This market test included the fall and winter months and three weeks of spring. Average weekly sales of variety meats increased from TP-1 (fall) to TP-2 (winter); and declined in TP-3 (winter and early spring) despite promotion. This decline in TP-3 followed a normal seasonal pattern.

⁸Refer to data in text on page 4.

SUMMARY AND CONCLUSIONS

During 1972-82, U. S. per capita consumption of variety meats reached a high of 5.66 pounds in 1977 and then declined to 4.21 pounds in 1982.

The objective of this market test was to measure the effects of promotional and merchandising strategies on food store sales of selected beef/pork variety meats (eight "beef" items and four "pork" items).

Promotion took place in eight test stores of one food chain in three test markets (Salina, Topeka, and Wichita, KS) during three eight-week test periods (TP).

Promotional and merchandising strategies tried were: 1) a special clearly designated display section for variety meats; 2) point of purchase (POP) price signs; 3) colored wall posters; 4) POP nutritional information and recipes; 5) newspaper advertising at two conventional supermarkets; 6) in-store advertising at all stores; 7) price specials; 8) personal salesmanship; and 9) product taste samples.

Meat department sales (in dollars) averaged 17.2% of store sales in all stores in TP-1 and were quite uniform over the three test periods.

Variety meat sales (in dollars) averaged 0.65% of meat department sales in TP-1. Changes (up, steady, or down) in percentages during the three test periods were not consistent for the eight stores. They varied from 0.0 to 0.3 percentage points.

Average weekly sales (pounds) of total variety meats increased in every test store from TP-1 to TP-2. Sales of five beef items (heart, liver, sweetbreads, tripe and oxtails) increased significantly. Retail sales increased 9.6% in the eight test stores compared to a 6.0% seasonal increase in purchases by all stores associated with a wholesale supplier (AWG). A seasonal decline in pounds of variety meats sold of 19.6% in test stores from TP-2 to TP-3 was matched by a 19.1% drop in wholesale purchases by all stores. Promotion in TP-2 increased retail sales over those of TP-1, but continued promotion in TP-3 did not lead to further sales increases.

Results of the promotion show the need for a related study to obtain information on consumers' acceptance of and preferences for variety meats, consumers' attitudes toward the product, product usage, and reasons for not using variety meats often.

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Table 1. Estimated Annual per Capita Consumption of Variety Meats, Retail Weight Equivalent, United States, 1972-82.

Year	Edible Offals ¹	Lard	Variety Meats and Edible Tallow	Variety Meats ²
<u>Pounds, retail weight</u>				
1972	10.5	3.7	6.8	4.69
1973	9.7	3.3	6.4	4.42
1974	10.5	3.2	7.3	5.04
1975	10.1	2.8	7.3	5.04
1976	10.6	2.6	8.0	5.52
1977	10.4	2.2	8.2	5.66
1978	9.5	2.2	7.3	5.04
1979	10.4	2.4	8.0	5.52
1980	9.5	2.4	7.1	4.90
1981	9.4	2.5	6.7	4.62
1982	8.6	2.5	6.1	4.21

¹Variety meats, edible tallow, and lard.

²Beef variety meats (livers, tongues, hearts, tripe, and oxtails) were 69% of the pounds of "variety meats and edible tallow" based on 19.26 lbs. of by-products per 100 lbs. live weight of a typical 1,000 lb. slaughter steer and average packer yields during the week of 1/24/85.

Sources: National Food Review, USDA. ERS. NFR-25, 1984, p. 20.
 Agricultural Statistics, USDA, 1983, p. 316.
 Livestock Division, Market News Branch, USDA, North Brunswick, N.J.

Table 2. Prices of Beef/Pork Variety Meats, Test Period 1, Price Discounts for Selected Variety Meats and Number of Eight Retail Food Stores Offering Discounts, by Test Period and by Week, 1985-86.

		Variety Meat, by Item											
Test Period	Week	Beef								Pork			
		Liver	Kidney	Heart	Tongue	Tripe	Sweet-breads	Brains	Oxtail	Liver	Maws	Brains	Feet
<u>Retail price (cents per pound) and number of stores ()</u>													
1 ¹	1-8	99	39	59	159	79	139	99	139	49	45	129	39
<u>Discount (cents per pound) and number of stores ()</u>													
2	1	20 (2)											
	2	20 (2)											
	3			4 (8)			10 (8)						10 (8)
	4			4 (8)			10 (8)						10 (8)
	5							10 (2)	10 (2)	4 (2)			
	6							10 (2)	10 (2)	4 (2)			
	7				30 (1)	10 (1)						8 (1)	
	8				30 (1)	10 (1)						8 (1)	
3	1	20 (8)											20 (8)
	2	20 (8)											20 (8)
	3			4 (2)		20 (2)*	10 (8)						10 (8)
	4			4 (2)		20 (2)*	10 (8)						10 (8)
	5					20 (2)*		20 (8)	10 (8)	10 (8)			
	6					20 (2)*		20 (8)	10 (8)	10 (8)			
	7				20 (8)	10 (8)						8 (8)	
	8				20 (8)	10 (8)						8 (8)	

¹Uniform prices for all eight stores.

*Price increases.

Table 3. Average Weekly Dollar Sales of the Meat Department and of the Store and Meat Department Sales as a Percentage of Store Sales, by Test Period and by Retail Food Store.

Test Period ¹	Retail Food Store							
	S8	S16	T2	T4	T6	T12	W18	W20
	<u>Meat department sales (hundred dollars)²</u>							
1	311.	249.	173.	149.	297.	378.	409.	390.
2	311.	239.	187.	152.	320.	433.	432.	413.
3	279.	197.	194.	150.	310.	390.	400.	380.
	<u>Store sales (hundred dollars)²</u>							
1	1904.	1543.	1085.	872.	1522.	2535.	2148.	2050.
2	1907.	1527.	1089.	869.	1751.	2646.	2513.	2025.
3	1712.	1295.	1052.	837.	1765.	2611.	2261.	1631.
	<u>Percentage of store sales</u>							
1	16.3	16.1	15.9	17.1	19.5	14.9	19.0	19.0
2	16.3	15.6	17.2	17.5	18.3	16.4	17.2	20.4
3	16.3	15.6	18.4	17.9	17.6	14.9	17.7	23.3

¹A test period was eight weeks.

²Data rounded to nearest hundred.

Table 4. Average Weekly Dollar Sales of Beef/Pork Variety Meats and of the Meat Department and Variety Meat Sales as a Percentage of Meat Department Sales, by Test Period and by Retail Food Store.

Test Period ¹	Retail Food Store							
	S8	S16	T2	T4	T6	T12	W18	W20
<u>Variety meat sales (hundred dollars)²</u>								
1	2.23	0.73	0.97	0.65	2.30	0.80	2.63	5.47
2	2.13	1.05	1.33	0.90	2.28	1.06	2.89	5.77
3	1.67	0.85	0.92	0.51	2.76	0.57	2.67	4.26
<u>Meat department sales (hundred dollars)²</u>								
1	311.	249.	173.	149.	297.	378.	409.	390.
2	311.	239.	187.	152.	320.	433.	432.	413.
3	279.	197.	194.	150.	310.	390.	400.	380.
<u>Percentage of meat department sales</u>								
1	0.7	0.3	0.6	0.4	0.9	0.2	0.7	1.4
2	0.7	0.4	0.7	0.5	0.7	0.3	0.7	1.4
3	0.6	0.4	0.5	0.3	0.9	0.1	0.7	1.1

¹A test period was eight weeks.

²Data rounded to nearest hundred.

Table 5. Average Weekly Sales of Beef/Pork Variety Meats, by Item and Total, by Retail Food Store and by Test Period.

Store	Test Period	Variety Meat, by Item												Total Variety Meats
		Beef								Pork				
		Liver	Kidney	Heart	Tongue	Tripe	Sweet-breads	Brains	Oxtail	Liver	Maws	Brains	Feet	
<u>Pounds of variety meats</u>														
S8	1	80.4	8.5	9.8	15.4	21.2	5.0	10.2	15.9	32.5	30.0	2.9	53.6	285.4
	2	87.8	7.1	16.1	8.6	21.2	5.6	4.0	13.4	31.4	15.6	4.6	70.8	286.2
	3	88.4	7.8	9.4	8.8	14.1	2.2	3.0	6.8	28.2	14.8	2.1	34.9	220.5
S16	1	32.2	8.8	3.9	1.9	10.1	3.8	3.4	3.6	8.0	5.0	0.6	10.5	91.8
	2	59.9	7.1	5.6	2.0	9.1	4.5	2.1	7.1	4.4	5.1	2.1	9.4	118.4
	3	56.9	3.9	4.4	1.0	8.1	3.1	1.5	2.8	4.8	4.1	2.1	7.4	100.1
T2	1	38.0	12.8	7.0	3.5	5.0	6.2	3.2	12.0	9.8	3.6	2.1	6.5	109.7
	2	44.8	10.2	20.0	8.4	6.4	10.0	5.5	15.4	18.2	4.4	3.0	15.0	161.3
	3	36.4	10.0	7.1	4.5	2.6	5.5	4.0	10.0	15.4	0.9	4.1	11.8	112.3
T4	1	31.9	2.6	5.8	3.9	1.0	2.1	0.9	7.2	4.0	2.2	2.5	4.9	69.0
	2	40.0	5.6	11.5	4.5	2.0	5.5	1.8	9.6	10.8	1.2	3.2	9.0	104.7
	3	26.2	2.8	5.2	3.2	0.2	4.4	1.9	2.8	3.6	0.0	1.8	6.4	58.5
T6	1	62.2	14.2	9.0	11.0	15.0	10.7	11.8	31.3	25.5	21.5	4.8	76.7	293.7
	2	95.6	12.5	9.9	4.9	12.5	7.5	5.0	18.5	24.1	23.8	4.0	100.8	319.1
	3	131.0	12.0	2.0	2.1	24.5	11.4	4.2	45.9	24.2	17.5	0.9	63.8	339.5
T12	1	40.6	4.1	3.0	2.5	0.4	1.0	1.8	15.1	6.6	0.0	1.1	8.9	85.1
	2	60.1	7.6	7.9	3.6	0.9	1.8	1.0	11.4	11.2	1.5	3.0	9.1	119.1
	3	29.4	3.5	2.4	1.8	1.5	2.4	1.8	6.6	6.5	1.8	2.8	5.8	66.3
W18	1	90.1	4.8	30.8	24.0	26.4	6.5	4.4	20.8	5.8	44.5	3.9	62.5	324.5
	2	122.6	4.0	17.0	25.8	38.9	4.8	1.2	17.5	3.0	40.2	1.6	88.8	365.4
	3	111.9	1.6	27.5	19.2	26.5	11.5	0.5	32.9	1.8	33.4	0.0	51.8	318.6
W20	1	126.8	7.5	22.6	11.0	29.8	9.6	6.8	134.9	14.9	101.0	7.4	242.4	714.7
	2	129.8	11.4	32.2	10.9	33.8	14.1	2.8	173.1	6.4	116.0	6.8	152.0	689.3
	3	119.8	21.5	13.2	10.2	20.0	29.8	12.9	93.9	6.2	87.6	7.4	101.2	523.7

Table 6. Sum of Average Weekly Sales of Beef/Pork Variety Meats, by Item and Total, for Eight Retail Food Stores in Three Test Markets, by Eight-week Test Period.

Variety Meat, by Item													
Test Period	Beef							Pork				Total Variety Meats	
	Liver	Kidney	Heart	Tongue	Tripe	Sweet-breads	Brains	Oxtail	Liver	Maws	Brains		Feet
<u>Pounds of variety meats</u>													
1	502.2	63.3	91.9	73.2	108.9	44.9	42.5	240.8	107.1	207.8	25.3	466.0	1973.9
2	640.6	65.5	120.2	68.7	124.8	53.8	23.4	266.0	109.5	207.8	28.3	454.9	2163.5
3	600.0	63.1	64.1	50.8	97.5	43.3	29.8	201.7	93.7	160.1	21.2	252.1	1739.5

Source: Table 5.

Table 7. Average Weekly Sales of Beef/Pork Variety Meats and Customer Counts, by Test Period and by Retail Food Store.

Test Period ¹	Retail Food Store							
	S8	S16	T2	T4	T6	T12	W18	W20
<u>Variety meat sales (lbs.)</u>								
1	285.4	91.8	109.7	69.0	293.7	85.1	324.5	714.7
2	286.2	118.4	161.3	104.7	319.1	119.1	365.4	689.3
3	220.5	100.1	112.3	58.5	339.5	66.3	318.6	523.7
<u>Variety meat sales (lbs. per 1,000 customers)</u>								
1	37.1	13.5	11.8	10.3	26.5	8.3	36.9	83.1
2	37.7	18.2	18.3	16.4	29.0	11.5	38.5	91.9
3	30.6	17.3	12.8	9.1	30.6	6.2	35.8	73.8
<u>Variety meat sales (dollars)</u>								
1	223.08	73.27	96.51	64.92	230.12	80.17	262.64	547.06
2	213.09	104.61	133.12	90.28	228.30	105.89	288.86	577.35
3	166.65	84.71	92.35	51.12	275.54	57.27	267.25	426.10
<u>Variety meat sales (dollars per 1,000 customers)</u>								
1	28.97	10.78	10.38	9.69	20.73	7.78	29.85	63.61
2	28.04	16.09	15.13	14.11	20.75	10.18	30.41	76.98
3	23.15	14.61	10.49	8.00	24.82	5.35	30.03	60.01
<u>Customer counts (thousand)</u>								
1	7.7	6.8	9.3	6.7	11.1	10.3	8.8	8.6
2	7.6	6.5	8.8	6.4	11.0	10.4	9.5	7.5
3	7.2	5.8	8.8	6.4	11.1	10.7	8.9	7.1

¹A test period was eight weeks.

Table 8. Average Weekly Loss of Beef/Pork Variety Meats and Loss as a Percentage of Average Weekly Sales of Variety Meats, by Test Period and by Retail Food Store.

Test Period ¹	Retail food store							
	S8	S16	T2	T4	T6	T12	W18	W20
	<u>Variety meat loss (lbs.)</u>							
1	4.1	13.6	8.9	8.0	4.3	41.1	30.0	6.2
2	5.8	22.4	0.4	6.0	NA ²	29.8	21.8	NA ²
3	7.6	20.6	3.1	4.9	0.8	23.0	29.5	2.4
	<u>Loss as a percentage of sales</u>							
1	1.4	14.8	8.1	8.3	1.5	48.3	9.2	0.9
2	2.0	18.9	0.2	5.7	---	25.0	6.0	---
3	3.4	20.6	2.8	8.4	0.2	34.7	9.3	0.4

¹A test period was eight weeks.

²Not available.

Table 9. Wholesale Purchases of Selected Beef/Pork Variety Meats by All Retail Food Stores from Associated Wholesale Grocers, Inc. (Kansas City Division), in 1984-85 and 1985-86, by Test Period.

Test Period ¹	1984-85	1985-86
	<u>Pounds of variety meats</u>	
1	86,678	87,646
2	99,290	92,868
3	74,792	75,122

¹Based on comparable weeks of billing periods 10-13 and 1-4.

Source: Table 10.

Table 10. Wholesale Purchases of Selected Beef/Pork Variety Meats by All Retail Food Stores from Associated Wholesale Grocers, Inc. (Kansas City Division), by Billing Periods, 1984, 1985, and 1986.

Billing Period ¹	Pounds of Variety Meats Purchased ²		
	1984	1985	1986
1	N.R. ³	53,568	43,098
2	N.R.	49,263	46,001
3	N.R.	37,903	35,451
4	N.R.	32,764	N.R.
5	N.R.	28,098	N.R.
6	19,062	24,629	N.R.
7	16,729	26,892	N.R.
8	17,545	27,153	N.R.
9	22,335	21,073	N.R.
10	38,304	42,339	N.R.
11	44,116	41,354	N.R.
12	46,819	50,243	N.R.
13	44,334	52,087	N.R.

¹A four-week period beginning in January and ending in December.

²Included beef oxtail, beef liver, beef tripe, pigs feet, pork liver, pork maws, and pork brains. Beef kidney, beef heart, beef tongue, beef sweetbreads, and beef brains were supplied by independent meat packers.

³Not recorded.



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