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Consumer Attitudes and Preferences Regarding Chicken



TEXAS AGRICULTURAL EXPERIMENT STATION

R. D. LEWIS, DIRECTOR, COLLEGE STATION, TEXAS

SUMMARY AND CONCLUSIONS

WHAT IS FOUND

Chicken is the first-choice meat of only 17 percent of the families in Houston, Texas. Most of the families who bought chicken at the chain food stores included in the survey did not consider it their preferred meat.

People usually buy chicken because it is preferred or because it is used for variety in the family menu.

The lower a family's preference for chicken, the less likely it is to be served in the home, even though it may be a less expensive meat dish.

An educational "rebound" apparently exists against chicken. The more educated the housewife, the greater the likelihood that her family will prefer some meat other than chicken.

Chicken is the preferred meat only among low-income families. They also serve it more frequently.

Negro families have a basic preference for chicken, apart from any influence family income may have.

Few families think of chicken in terms of its food value and nutritional advantages.

Baked chicken and chicken and dumplings appear to be declining in popularity.

Most families that increased chicken purchases during the year did so because the family increased in size or because chicken is now considered more economical than other meat.

Chicken is considerably more popular for weekday evening meals or Sunday dinners than it is for special occasion meals.

Fifty-seven percent of the families that purchased frozen chicken recently said that they were dissatisfied with it.

The major complaint against frozen chicken is that it is tasteless or flavorless.

WHAT IS RECOMMENDED

Greater promotion of broiler chicken for its food value and nutritional advantages—low calories (low fat content), high protein and high vitamin B. Chicken has more B vitamins than beef and is equal in protein value. Apparently few consumers know it.

Promotion of chicken among medium and high-income families to increase its preference rating over other meat.

Greater advertising emphasis on baked chicken and chicken and dumplings as menu items to stimulate a broader consumer use for chicken. This would need to be supported by proved recipes for these dishes.

Programs to stimulate greater use of chicken as a noonday meal or lunch box item.

More advertising or promotional material featuring chicken as the meat for special-occasion meals.

More promotions and advertising built around the pieces of chicken preferred by consumers.

THE COVER PICTURE

The color transparency on the front cover is used through the courtesy of the Poultry and Egg National Board, 8 South Michigan Avenue, Chicago, Illinois.

Consumer Attitudes and Preferences Regarding Chicken

ROBERT. E. BRANSON and GEORGE J. MOUNTNEY*

INCREASED COMPETITION among food products makes consumer marketing research as important to the marketing of food as it is to the selling of television sets, refrigerators, automobiles or any other type of consumer goods. Consequently, producers, processors and retailers of poultry are finding it increasingly important that they know more about why consumers buy or do not buy their product.

This report is designed to answer some of the "whys" behind consumers' buying of chicken, fresh or frozen, and how they use the product. Emphasis is on an analysis and interpretation of consumers' attitudes toward chicken as a family food. This necessitates, to some degree, interpretation of the psychology of consumers. Knowledge of their attitudes was obtained from interviews with purchasers of chicken in selected chain stores in Houston, Texas.

What are the advantages of chicken in consumers' minds? Where does it lack consumer acceptance, and why? Are consumers misinformed about some of the characteristics of chicken? Have they prejudices that are obstacles to increased demand? What are the basic consumer motivations in buying this meat? What are possible appeals to increase consumer demand? The marketing research reported here provides answers to a number of these and other questions. Further studies of consumers' motivations in the use of poultry and other meats are now in the planning stages.

CONSUMER ATTITUDES

Several research techniques can be used to determine consumers' attitudes toward a food product. One is to ask direct and indirect questions which will reveal their opinion of the product. Another is to deduce their attitudes from the uses they make of it. Both of these techniques were used in this study. Other methods are being developed for use in additional consumer preference research.

Family Meat Preferences

How does chicken rank as a family meat preference? With the exception of beef, it is the first-choice meat of Houston households. A previous household survey of 1,000 representative families in the city indicated that 60 percent preferred beef and only 17 percent chicken. Veal, the third most preferred meat, was the choice of only 9 percent of the families. Here, as in most marketing

research reports, preference means that it is the first choice among the group of products considered.

TABLE 1. MEAT PREFERENCES OF HOUSTON CONSUMERS, SEPTEMBER-NOVEMBER 1955

Meat	All families first preferences ¹	Meat preferences		
		Families buying chicken ²		
		First preference	Second preference	Third preference
		Percent of families		
Beef & veal	69	53	27	15
Pork	8	4	12	34
Chicken	17	41	48	10
Fish	2	2	11	36
Other	4	³	2	5
Total	100	100	100	100

¹Survey among all Houston families during the summer of 1955.

²In selected chain stores.

³Less than 1 percent.

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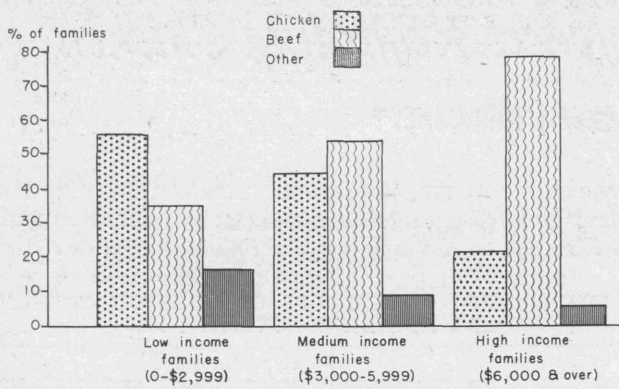


Figure 1. Meat preference, according to family income, of those buying chicken in selected Houston chain stores.

Since this survey was conducted only among poultry purchasers contacted in a selected group of chain stores and families most likely to be contacted were those that bought chicken frequently, their preferences for chicken were higher than that of all Houston families. Forty-one percent of them preferred chicken and 53 percent preferred beef. Even among the majority of the poultry-buying families interviewed, chicken is not the preferred meat. However, it ranks close as a first preference, Table 1.

When families were asked which meat was their second preference, chicken ranked far ahead of any other. Pork and fish were the most popular third choices.

Family income, through its influence on personal behavior, is related to meat preferences. Chicken is definitely a second choice meat among both high and middle-income families. Only among low-income families is chicken the preferred meat. Similar indications were found in other recent research.¹ Therefore, in most families, chicken is selected for variety when something besides beef is desired, Figure 1.

Two reasons why consumers buy chicken, therefore, become evident immediately. It is either preferred or it is a popular selection for variety in the meat diet.

¹Branson, Robert E., "The Consumer Market for Beef," Bulletin 856.

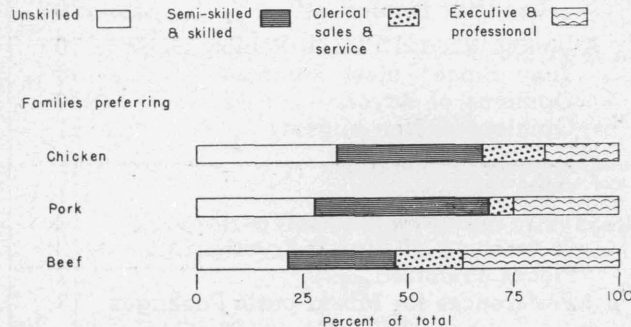


Figure 2. Occupational classification of head of household in families preferring indicated kinds of meat, Houston.

The occupation of the head of the household largely reflects the socio-economic position of the family in the community. Figure 2 views the preference for beef, pork and chicken on the basis of this classification and provides further insight regarding the kind of families preferring poultry. Families of executive, supervisory or professional people generally prefer beef. Only among the semi-skilled or unskilled workers' families does the preference change to chicken. It is apparent then that advertising and promotions to increase the preferences for chicken need to be directed to the executive, professional and supervisory group. This should lead to better results at less cost.

The survey also indicated that the more educated housewives are, the more likely chicken will be their second choice meat. This also poses a marketing problem because the educational level of consumers is likely to continue to rise steadily in the years ahead.

What creates this educational "rebound" away from chicken? It may be that beef is considered the "prestige meat" while chicken is thought of as the "poor man's delicacy." Changes in the ideas of the nutritional value of poultry as one becomes more educated may be a factor. Further research, already in the planning stages, will be necessary to determine the kind and importance of the factors involved.

The survey also indicated that most of the Negro families preferred chicken over beef, while the reverse is true among the white families. This is another important marketing factor. Lower incomes among Negro families is not the cause, as some would suppose. Another recent Houston survey indicated that preferences for chicken by Negro families were little affected by upward changes in family income.² Social group attitudes toward particular foods apparently affect their preferences much stronger than the influence of income.

Religious affiliations, which influence the selection of some foods, had little association with beef and chicken preferences. The possible exception was among Jewish families. However, too few Jewish families were interviewed to permit reliable conclusions.

Ideas Associated with Chicken

Consumer attitudes toward a product are generally revealed by the spontaneous ideas they associate with it. For this reason, families were asked to indicate their thoughts when chicken was mentioned as a food. Half of the 745 families thought first of some form in which chicken is prepared. Fried chicken was by far the most common thought association (39 percent of those interviewed). Chicken with dumplings and baked chicken and dressing outranked either

²Op. cit.

broiled or barbecued chicken, particularly as a second thought response. All four of these, however, were much lower in thought incidence level than fried chicken, Table 2.

Personal reaction to eating chicken was the first idea association of about a fifth of the poultry purchasers. Comments included a "tasty meal," eating "light and white" meat or eating "favorite parts." Ten percent immediately began thinking of matters related to meal preparation—"preparing meals with chicken," and "vegetables to go with" or "protein and food value" of chicken. Special occasions—holidays, picnics and large family dinners—came to the minds of another 6 percent of the poultry buyers.

An interpretation of these replies shows two things that are of particular interest. First, neither chicken and dumplings nor baked chicken and dressing seems to be very popular today with Houston consumers. This may be because fried chicken is easier to prepare plus the fact that it probably is more photogenic as advertising copy. Too, the art of making dumplings is probably not as well known as in previous decades. The question arises then as to whether more attention should be given to these dishes that are points of

TABLE 2. THOUGHTS ASSOCIATED WITH MENTION OF CHICKEN AS A FOOD, HOUSTON, SEPTEMBER-NOVEMBER 1955

Thought association	First thought	Second thought	Percent of respondents	
			— —	— —
Chicken dishes:				
Fried chicken	39	20		
Chicken and dumplings	4	11		
Baked chicken and dressing	3	10		
Broiled chicken	2	6		
Barbecue chicken	1	3		
Chicken pie	1	1		
Chicken salad	1	2		
Chicken soup	1	2		
Sub-total	50	55		
Eating chicken:				
Tasty meal	19	11		
Light and white meat	1	3		
Eating favorite parts	2	1		
Sub-total	21	14		
Preparing meals:				
Preparing meals with chicken	5	5		
Vegetables that go with chicken	4	11		
Protein and food value of chicken	1	1		
Sub-total	10	16		
Special occasions:				
Holidays	1	—		
Picnics	1	2		
Large family dinner	5	6		
Sub-total	6	8		
Miscellaneous	13	7		
Total	100	100		
Number of families in survey sample	745	274		

¹Less than 1 percent.

TABLE 3. FOOD VALUES OF SELECTED FORMS OF CHICKEN AND BEEF PER 50 GRAMS OF EDIBLE PORTION¹

Item	Calories	Protein	Fat	Niacin	Thiamine
	Number	Grams	Grams	Milli-grams	Micro-grams
Chicken, fried	121	14.0	12.4	5.3	41
Beef					
Round	118	12.9	7.1	2.1	10
Sirloin, broiled	149	11.6	11.0	2.4	30
Club steak, broiled	171	11.5	13.3	2.3	30
Chuck roast	155	13.0	11.0	2.0	25

¹Source: "Food Values of Portions Commonly Used," by Bowes and Church.

weakness in the consumer market demand for poultry. It probably deserves more attention in promotional and educational food material copy.

This also introduces the interdependence, or cross effects, of advertising policies of other associated foods. It is suspected that the popularity of fried chicken is partly the result of advertisements of vegetable shortening manufacturers. It certainly appears that fried chicken has been promoted more in advertising copy by these food manufacturers than by either the poultry processors or producers. Fried chicken uses more of their product than other forms of preparing the meat. Therefore, their promotion of fried chicken has by no means been happenstance.

The second indication from consumers' replies was the almost total lack of association of chicken with its food value. Here poultry producers and processors appear to have missed what may be a very excellent promotional opportunity. Apparently consumers' awareness of the food value of

TABLE 4. VARIATIONS, BY FAMILY TYPE, IN IDEA ASSOCIATIONS WITH CHICKEN, HOUSTON, SEPTEMBER-NOVEMBER 1955¹

Type of family	Number of families in survey	Selected idea associations			
		Fried chicken	Tasty meal	Baked chicken and dressing	Chicken and dumplings
		— — Percent of families — —			
Family income:					
High (\$6,000 and over)	151	58	7	3	5
Medium (\$3,000-\$5,999)	413	39	22	4	3
Low (0-\$2,999)	157	27	28	4	7
Education of housewife:					
College	163	47	13	2	6
High school	278	47	18	4	4
Grade school	241	30	24	4	4
Age of housewife:					
Under 40	420	47	16	4	3
40-59	236	34	21	4	5
60 and over	70	19	36		9
Race:					
White	508	42	18	4	5
Negro	201	37	22	4	4

¹Poultry buyers in selected chain stores.

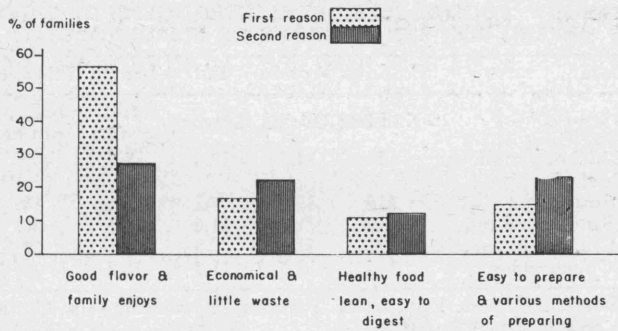


Figure 3. Major reasons for buying chicken, families making purchases in selected Houston chain stores, October-November 1955.

this product has been taken for granted—a very dangerous assumption for the poultry industry to accept.

Emphasis on the B vitamins in properly balanced diets (and in promoting vitamin supplements) has been capitalized upon by producers of several foods. Also the C vitamin has been used to great advantage in encouraging consumer use of citrus fruits. Accepted food composition tables reveal that niacin and thiamine (two of the major B vitamins) rank higher in chicken than in most beef cuts.^{3 4} Probably few consumers are aware of this.

Consumers also need to know that a pound of meat from a broiler size chicken contains fewer calories than a pound of beef, but is equal in protein plus the higher B vitamin content mentioned above, Table 3. "Weight conscious" consumers are readily interested in such facts. Why not take advantage of this interest and need?

³"Composition of Foods," Agricultural Handbook No. 8, U.S.D.A., Washington, D.C., 1954, and "Food Values of Portions Commonly Used," Bowes and Church, Seventh Edition, Philadelphia, Pa., 1951.

⁴The exception possibly is beef liver.

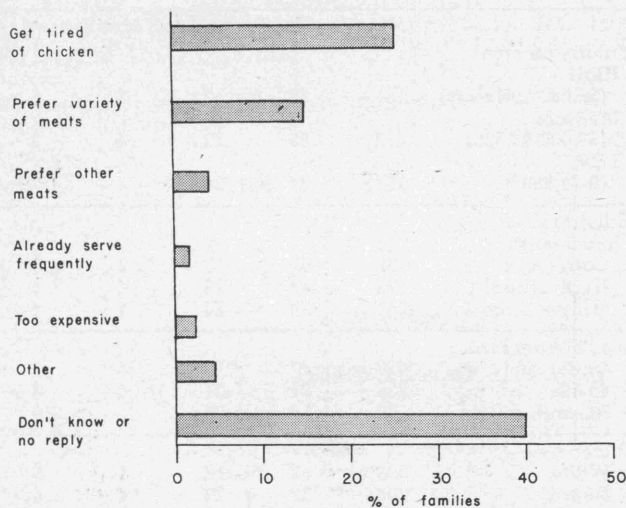


Figure 4. Reasons for not serving chicken more frequently.

Some of the variation in ideas about chicken according to type of family are shown in Table 4. As anticipated, mention of chicken and dumplings as a dish drops sharply among the younger housewives. Therefore, greater promotion of this dish may be beneficial. Tasty meals are associated with chicken more frequently by low-income than by middle or high-income families. The reason is not known, but probably is related to differences in meat preferences.

Principal Reasons for Buying

Further information about consumers' attitudes toward chicken and their implications are revealed in answer to the question: "What are your main reasons for buying chicken?" They fell into four groups: flavor, economy, health and versatility in meal preparation. Flavor predominates among the first and second reasons given for buying chicken. Its economy as a food item was the second most frequently mentioned motivation in making purchases, Figure 3.

The thought of chicken as a nutritious food was mentioned in reasons for buying more often than in the previously discussed question dealing with "free-idea" associations. Even so, it ranked a low third as either a first or second factor influencing consumers' decisions to buy chicken. A lack of knowledge, or a generally disinterested and passive attitude toward the food value of chicken, was thereby confirmed by replies to this question. Consumers apparently consider chicken a good food, but no more so than any other. Consequently, among the Houston families interviewed, very little consideration is given to its nutritious and healthful qualities.

The above findings indicate strongly the need for an educational program that will increase the consumer demand for chicken based on its particular food value properties of high protein, high vitamin B source and lower calorie value than other major meats. If a higher calorie count is wanted, it can be had by buying hens instead of broilers, because hens generally are fatter and, therefore, have more calories.

Reasons for Not Serving More Often

Regardless of the resources that might be devoted toward increasing the consumer demand for chicken, some consumers will not be persuaded to buy it. Can the extent of resistance be predetermined? Some idea of the resistance that may be encountered is indicated in Figure 4.

Apparently 40 percent of the poultry buyers checked in the Houston stores surveyed had no particular reason for not buying more poultry. Expansion of consumption among these families appears possible. The remaining 60 percent, however, present varying degrees of resistance. Relatively stiff resistance may come from those saying "do not want to tire of chicken," "too expensive" or "already serve it frequently."

TABLE 5. REASONS FOR INCREASING OR DECREASING POULTRY PURCHASES DURING PAST YEAR, POULTRY CUSTOMERS OF SELECTED CHAIN STORES, HOUSTON, SEPTEMBER-NOVEMBER 1955

Reason	Purchases	
	Increased	Decreased
	— Percent of families —	
Change in size of family	12	39
Family eats more chicken	24	
More economical	34	
Chicken on diet	11	
Easier to serve	6	
Use more variety in meats		22
Have less money to spend on chicken		9
Have less time to cook		9
Don't eat chicken in summer		6
Chicken quality has decreased		6
Other	13	9
Total	100	100
Number of families	217	46
Percent of number in sample	29	6

However, statements such as "preference for other meats" and the like, imply an attitude that may be subject to influence by new types of educational and promotional programs.

Chicken was considered too expensive by only about 11 percent of the low-income families (0 to \$2,999 per year) and 6 percent of those with medium incomes (\$3,000 to \$5,999). Therefore, with the exception of a few families, the cost of chicken in Houston now is not an obstacle to greater use.

Reasons for Changing Purchases

Consumers' motivations in buying poultry also are revealed by their reasons for increasing or decreasing purchases over the previous year. Two-thirds of the poultry buyers interviewed reported no change during the year in their buying rate for chicken. Twenty-nine percent increased their purchases; only 6 percent reported decreases, Table 5.

Growth of the family in numbers or in the ages of the children motivated a third of those making increased purchases. This usually meant more children to feed or the children were reaching the age when their food consumption increased.

Another third of the families who increased buying did so because poultry was more economical—at least, in relation to other food prices. Six percent said it was because chicken is easy to serve. In these replies nothing seems capable of interpretation as a basic change in consumers' attitudes toward poultry except "easier to serve." This point is another that also can be stressed advantageously in promotional material.

In the small proportion of the households where housewives reported that poultry purchases declined, either a reduction in family size or the desire to use a greater variety of foods was the principal cause, Table 5.

Days and Meals Chicken Is Served

As noted earlier, family uses of chicken can in themselves reveal attitudes toward this food. It is found most frequently on the family table for Sunday dinner or weekday evening meals, Figure 5. Very few families reported using chicken in any form as a part of noon meals during the week. When it comes to special occasion meals, about as many families use chicken frequently as do not.

A better understanding of the use of chickens can be had by looking more closely at the replies received. Although chicken is a popular Sunday dinner item, a third of the families use it infrequently for this purpose. Likewise, about a third of the families serve chicken infrequently during the week at evening meals. Therefore, a considerable portion of the consumers are not using chicken very frequently for these meals. To obtain increased consumption of chicken among these families is the marketing challenge that faces the poultry industry.

The extremely low frequency with which chicken is served at noon meals also needs investigation. Increased use there, however, may be difficult to stimulate because most families do not eat together at this meal. Either chicken salad sandwiches or cold fried chicken, no doubt, could be a common part of lunches at home or on the job. Eating practices of families at their noon meals probably need further marketing research by the poultry industry.

An analysis of the type of families using chicken at noon meals reveals some interesting variations. Only 1 in 25 high-income families have chicken frequently at these meals, compared with 1 in 5 of the low-income families. Consequently, there is perhaps a greater possibility of increasing consumption at noon meals among high-income families.

Seventy-five percent of the high-income households and 50 percent or more of the middle and low-income families interviewed reported no use of chicken in any form at the weekday noon meal.

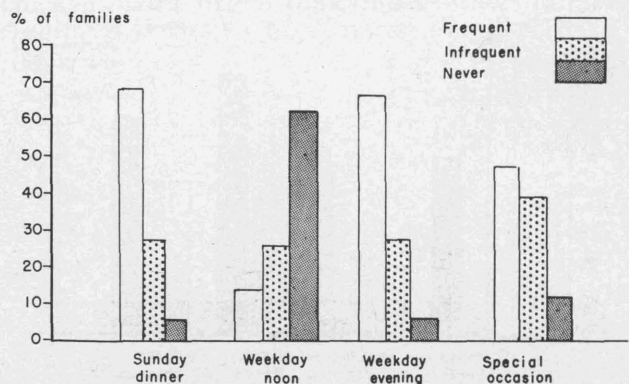


Figure 5. Frequency with which families serve chicken at various meals.

TABLE 6. PROPORTION OF FAMILIES, BY AGE OF HOUSEWIFE, SERVING CHICKEN FREQUENTLY AT SELECTED TYPES OF MEALS

Age of housewife	Number of families in survey	Meal			
		Sunday dinner	Week-day noon	Week-day evening	Special occasions
Under 40	431	64	11	69	46
40-59	240	72	10	68	58
60 and over	73	78	38	64	41

The highest frequency of using chicken at noon meals was among families where the housewife was 60 years of age or older. Among them, a third used chicken frequently as part of their lunch menus, Table 6.

Chicken is least likely to be part of midday meals of executive, supervisory or professional-worker families. Its use was most frequent, about 1 family in 5, among families of clerical or service employees.

Type of family	Percentage having chicken frequently at weekday noon meals	Number of families in the sample
Executive, supervisory or professional	7	198
Skilled or unskilled	10	157
Clerical or service	20	64

The noon meal, one must conclude, is definitely the weakest from the viewpoint of demand for chicken.

Since consumers interviewed in the survey were contacted at the food store, those using chicken most frequently would be most likely to be contacted. Therefore, the figures cited in this report are likely to overstate the frequency of use of chicken rather than to understate it. This makes the low frequency of some of the uses even more alarming from the viewpoint of the poultry industry.

Some other interesting and, in this case, perplexing differences also were found in the type of meal where chicken is served. High-income families (\$6,000 or more per year) who buy chickens, are more likely to serve them at special

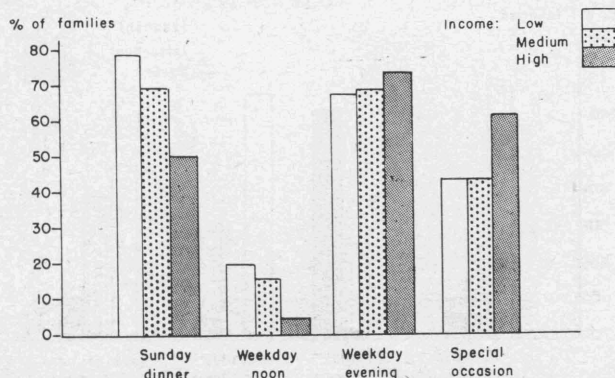


Figure 6. Proportion of families, in different income groups, serving chicken frequently at the indicated meals.

TABLE 7. NUMBER OF MEALS CHICKEN IS SERVED ACCORDING TO INCOME OF THE FAMILY, POULTRY BUYERS IN SELECTED STORES, HOUSTON, SEPTEMBER-NOVEMBER 1955

Number of Meals	Family annual income		
	Low (0-\$2,999)	Medium (\$3,000-\$5,999)	High (\$6,000-& over)
	Percent of Families		
1 per month	1	1	1
2 per month	4	6	8
3 per month	2	2	5
1 per week	24	43	57
2 per week	47	34	24
3 per week	13	12	4
4 per week	9	2	1
Total	100	100	100
Number of families	165	424	156

occasion meals than are low-income families. Low-income families—unable to afford beef frequently—may consider beef a prestige meat and, therefore, more suitable for serving on these occasions. Inability to afford beef also may be the reason low-income families (less than \$3,000 per year) are more likely to serve chicken for Sunday dinners, Figure 6. Reasons behind these consumption patterns need to be determined in future research.

Number of Meals Chicken Is Served

Although there appear to be opportunities to expand the market demand for chickens, the following facts indicate that expansion will not be achieved easily. Three-fourths of the poultry buyers interviewed already served chicken at one to two meals per week. Another seventh were having chicken three or four times per week. Only a tenth of the families reported having chicken less than once a week.

The 1 in 10 families having chicken less than once a week cannot be considered a large market potential with which to work. Not considered, however, are those who buy no chicken at all. Consumers not using chicken had no opportunity to be contacted at the poultry display in the stores. However, the percentage not using chicken is probably small.

It is evident then that the poultry industry must look, for the most part, toward increasing the consumption of chicken among families now serving it only once a week. This group, together with those using chicken only a few times a month, accounts for about half of the present poultry buyers. Any promotion program, obviously, must be directed primarily toward these consumers.

The decline in the proportion of families, from the low to the high-income group, who have chicken twice a week, is shown in Table 7. This further emphasizes the need to concentrate any promotion campaign among the middle and high-income families.

TABLE 8. EFFECT OF PREFERENCE FOR CHICKEN ON NUMBER OF MEALS IT IS SERVED ACCORDING TO INCOME CLASS, HOUSTON, SEPTEMBER-NOVEMBER 1955

Number of meals	Family income and preference for chicken					
	Low-income families		Medium-income families		High-income families	
	First	Second	First	Second	First	Second
	Percent of families					
1 per week	24	28	28	36	44	66
2 per week	45	47	40	54	41	19
3 per week	16	10	21	3	6	4
4 per week	13	7	6		3	
Number of families	87	58	180	311	32	100

Effect of Preference on Serving Frequency

The question arises often as to the degree of influence a person's preferences actually have on his buying behavior. If the preference for chicken can be increased, will it have any effect on the consumption of this product? Table 8 provides an indication of the effect of a preference for chicken on the meat bought by consumers interviewed in Houston. The actions of families are analyzed to determine the effect of family income. If first preference figures only are compared, differences associated with income are apparent readily.

Whether chicken is a first or a second preference meat has less effect on the number of meals it is served in low-income families than it does in medium or high-income families. Generally speaking, however, when chicken is a second preference meat, it is served at fewer meals. This underlines the influence and advantage of increasing the preference position of chicken among families now favoring other meats. It also points again to the fact that the potential for increased consumption appears greater among medium and high-income families than among those with low incomes.

Analysis also was made of the frequency of serving chicken by families who have it as their third choice meat. In most instances the serving frequency was reduced further. Therefore, consumers' replies consistently showed that when preference for chicken is lowered, so is the frequency with which it is served.

Effect of the Education on Serving Frequency

Apparently there is an "educational rebound" against chicken. The evidence develops when comparisons are made between the number of meals chicken is served in relation to the educational background of the housewives. To eliminate the influence of differences in family income, only those with medium incomes were compared in Figure 7. Only 6 percent of the families with a grade-school-educated homemaker serve chicken less than once a week, compared with 16 percent where the homemaker is college-educated. Also,

more of the college-educated housewives serve chicken just once a week rather than twice. In this and other instances conclusions are not stated unless accepted statistical tests indicate, with a very high degree of certainty, that a true difference exists among the population as a whole. Therefore, allowances have been made for sampling errors.

Better-educated housewives probably are more aggressive in preparing a variety of meat dishes in their menus. Consequently, they may feel less need to use chicken frequently. However, a wide variety of dishes can be prepared using chicken. Only by additional research will we learn more about why chicken is rejected by the better-educated housewife.

Tables presenting the findings among low and high-income families are not included, but the same general situation was present. Therefore, the indication was consistent throughout the 745 families interviewed.

Several other factors possibly associated with the number of meals chicken is served also were considered. No clear-cut pattern was found except that the age of the housewife seemed to have some influence. When the housewife reaches the 40-to-60 range, there is a greater tendency to increase or decrease the use of chicken than with housewives under 40 years of age. This same tendency continues as they attain the age of 60 and above. At present we do not know the reason for this shift to more or less use of chicken. It may be that more standard cooking habits evolve as the homemaker grows older. This change, however, may simply reflect a difference in the ideas and methods of meal preparation to which the young, middle-aged and older housewives have been exposed.

Although the Jewish families interviewed appeared to be low in their preference for chicken, it was learned that they serve chicken more frequently than most families of other religious faiths. However, when the number of families of a particular type interviewed is small, as it was for Jewish families, it is not possible to draw final conclusions. Mexican families, too, serve chicken more often than most other families. Again, the sample of Mexican families in the

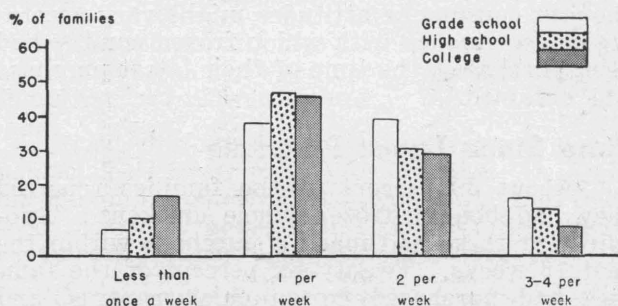


Figure 7. Education of the housewife and number of meals chicken is served during the week, medium-income families.

study was small, so this is only a tentative finding.

The analysis of the number of meals chicken is served again confirmed the indications that executive, supervisory and professional-worker families have chicken less frequently than those of skilled, semi-skilled or unskilled workers. Chicken was reported served twice a week by a much larger proportion of the latter families.

Frequency and Types of Meat Used for Picnics

Climatic conditions in Houston are conducive to picnicing. Since it is situated near the Gulf Coast, the weather during the winter is comparatively mild. Consequently, picnicing can be enjoyed almost the year round.

In spite of these favorable conditions, the proportion of families having picnics is not large, judging from the replies of the poultry customers interviewed. A little over a third of the families said they never have picnics. Another two-fifths have a picnic only one to four times during the year. Therefore, for three-fourths of the families interviewed, picnics are infrequent or non-existent. The remaining fourth of the families have picnics from one time per month to as frequently as once or twice a week. Some families reported that they have picnics only during the summer.

Apparently, it can be concluded that only about 10 percent of the poultry-buying families in Houston have frequent picnics. Such a small proportion may indicate that no special attention to picnicing is warranted in a program to increase poultry consumption. Maybe the idea of family picnics needs more promotion. Chicken already is a family picnic favorite. Seventy-five percent of the picnicing families serve chicken at half or more of these occasions. Another fifth reported having chicken at a third to a half of their picnics.

ATTITUDES TOWARD FROZEN POULTRY

Since the marketing of frozen chicken and other poultry began comparatively recently, consumers were asked whether they bought it in this form and their opinions of it. Because it was thought consumers' attitudes might vary according to the recency with which frozen poultry had been purchased, the time of their latest purchase was obtained.

Time Since Latest Purchase

About 30 percent of the families reported they had bought frozen whole chickens. Two-thirds of these had made a purchase within the past 16 weeks. Twenty-six percent of the families had purchased frozen chicken parts, and most of these were made within the past 16 weeks.

Housewives were not asked how frequently they purchased the various forms of frozen chicken; but, in view of the large percentage buying and the relatively small volume sold, it is likely that the purchase frequency is small. Only about 10 percent of the consumers purchased a frozen chicken within the 4 weeks preceding the interview, which also indicates a low purchase rate.

About one family in seven had bought frozen parts within the preceding 4 weeks. This was a somewhat greater purchase frequency for parts than for frozen whole chickens. The statistical possibilities of sampling variations, however, prevent a firm conclusion that frozen parts were bought more frequently than frozen whole chicken.

Opinions of Buyers

Those buying frozen whole chicken were more inclined to have an unfavorable rather than a favorable opinion of the product. Fifty-seven percent of those interviewed had unfavorable comments, Table 9. The most frequent reply was that it was tasteless. Other important comments were that the quality was bad, it lacked freshness or it was troublesome to thaw. Some gave no particular reason, but merely indicated that they preferred fresh chicken.

Only 1 percent of the families buying indicated they thought frozen chicken was too expensive. However, this cannot be interpreted as a true measure of the extent to which consumers are aware of the greater expense of frozen chicken. On a food item of this type, consumers are more inclined to indicate the bad points with respect to quality rather than the price unless they are questioned directly about it.

When 57 percent of the recent purchasers are dissatisfied with a product, as is the case for frozen whole chicken, a major consumer accept-

TABLE 9. OPINIONS OF FROZEN CHICKEN FROM THOSE WHO HAVE PURCHASED, HOUSTON, SEPTEMBER-NOVEMBER 1955

Opinions	Frozen whole chickens	Frozen chicken parts
	— — Percent of families — —	
Favorable:		
Prefer frozen	43	55
Other		2
Sub-total	43	57
Unfavorable:		
Tasteless	29	16
Prefer fresh	8	4
Bad quality	8	7
Lacks freshness	5	2
Troublesome to thaw	5	3
Too expensive	1	5
Other	1	6
Sub-total	57	43
Total	100	100
Number of families	242	188

ance problem exists. As indicated earlier, a detailed survey among frozen poultry buyers will be necessary to learn more about the problems of marketing chicken in this form. However, from the present findings, it seems that many families purchasing frozen chicken do so only for special uses, or because the fresh chicken available at the time is unsuitable.

The 43 percent of the buyers who made favorable comments regarding frozen chicken simply said they preferred to buy chicken this way. Additional research should seek the reasons for this preference.

Comments regarding frozen chicken parts were similar to those for frozen whole chickens. Forty-three percent of those who bought were not particularly satisfied with frozen parts. "Tasteless" again was the most frequently mentioned unfavorable reaction. "Bad quality" and "too expensive" also were reported by consumers. It is not surprising that "too expensive" was more frequently mentioned for chicken parts; the choice parts of the chicken naturally are priced much higher per pound than is a whole chicken.

The medium and high-income families have a greater preference for frozen chicken parts than the low-income group. Inability of low-income families to afford them is probably a factor. And, as is usual for frozen foods, a more favorable reaction was found among the younger housewives. Human resistance to change seems to increase as one becomes older and causes a rebellion against "new fangled" products.

Opinions of Non-buyers

When two-thirds of the families do not buy a product, it is important to know why. "Prefer fresh chicken" was the most important single reply. It was followed closely by "tasteless," and to a lesser extent by "lacks freshness" and "too expensive." Reasons for not buying frozen parts were largely the same. However, a number mentioned that they prefer whole chickens rather than parts. About a fifth of the families who had not purchased whole frozen chicken or parts gave no reason for not buying. These families, probably, have never had any inducement to try the product.

Things not said seem more important than comments made about frozen chicken. Indications are that most consumers see no advantage to frozen chicken. It is just another substitute product, more or less on a par with fresh chickens, but involving extra care in use and preparation. Many consider it an inferior product. Consumers, obviously, are more aware of the disadvantages than the inherent advantages of the product. Frozen chicken does possess several advantages over fresh chicken, assuming it receives proper care in processing, distribution and in storage at the retail store. Such advantages need to be stressed by consumer education and advertis-

ing programs, if the industry desires to expand the market for frozen chicken.

CONSUMER PREFERENCES

Consumers were quizzed concerning the form of poultry preferred for home use during warm weather, which includes at least half of the year in Houston, and during periods of cold or cool weather. Such information was sought because it gives some insight as to poultry dishes prepared by Houston families and whether they vary seasonally. The type of chicken preferred for the principal types of chicken dishes was also determined. Chickens may be purchased either live, whole-dressed, whole cut-up or as chicken parts.

Form Preferred

Consumer preferences as to fried, baked, broiled, stewed or barbecued chicken indicate that fried chicken is liked the most. This also was indicated in the "idea association" question discussed earlier.

Houston families were asked what proportion of the chicken served in the home was in each of the five forms mentioned above. This made it possible to determine the most popular forms and how much variation existed in methods of home preparation.

Replies revealed there is considerable variation in uses of chicken. As was expected, during warm weather, most of the families used fried chicken. For a third of the families fried chicken accounted for three-fourths or more of this meat served at home during warm weather. In another 23 percent, fried chicken represented one-half to three-fourths of their servings of this meat. Nonetheless, baked, broiled, stewed or barbecued chicken was occasionally served by a rather substantial proportion of the families during warm weather, Table 10.

In cold weather, approximately the same uses are made of chicken as during warm weather, except that fried chicken is somewhat less popular. Baking and stewing of chicken increases. The proportion of the time chickens are broiled remains almost unchanged from one season to the other. Barbecuing declines somewhat during cold weather, although the winters are comparatively mild in the Houston area.

High-income families reduce more the serving of fried chicken during cold weather than do the other two income groups.

Fried chicken is not used as extensively by homemakers 60 or more years of age. It is not uncommon for elderly individuals to say that fried foods no longer agree with them. Consequently, they are more inclined to stew chickens.

Outdoor barbecuing of chicken at home has increased in popularity during recent years. It is somewhat more popular among the high-income

TABLE 11. PIECES OF CHICKEN PREFERRED, HOUSTON, SEPTEMBER-NOVEMBER 1955

Piece of chicken	Preferences			
	First	Second	Third	Fourth
	— — — Percent of families — — —			
Breast	36	16	16	5
Drumstick	24	26	18	4
Thigh	19	32	17	4
Wing	6	8	9	5
Back	5	6	7	5
Gizzard	2	1	2	1
Liver & heart	1	1	2	1
Pulley bone	1	1	1	1
Miscellaneous	6	1	1	2
No answer		8	27	72
Total	100	100	100	100
Number of families	744	744	744	744

ences were voluntary statements of the individual. Had the parts been named in the interviews, it is possible that the pulley bone would have been selected more often.

The order of consumer preferences is in accord with store sales records. However, most families seem to prefer the whole chicken. They use the bonier parts rather than pay higher prices for only the meatier pieces.

As family income increases, there also is an increase in the preference for chicken breasts and a corresponding decline in preference for bony parts. For example, almost half of the high-income families preferred the breast of chicken as compared with only about a third of the medium-income families and a fourth of the low-income families. Primarily, for this reason, the more expensive chicken parts sell better in high-income areas than in the low-income areas. The higher prices asked for such pieces are of less consequence to these families.

Preferences for Mixed-parts Packages

A market test of a mixed package of chicken parts was conducted in a group of Houston chain stores as a part of the market research project. Two sizes of packages were used. One was a combination of two breasts, two drumsticks and two thighs. The smaller package was a combination of single pieces. Sales of these packages were low, indicating an insufficient demand. Most families reported enough variety in the chicken pieces preferred by family members to make it more suitable to buy whole chickens rather than pay higher prices for select pieces. The mixed-parts packages were priced enough higher in relation to the value of the other parts to reflect the value of a whole chicken. Previous pricing experiences of the participating stores for individual parts were available as a guide.

APPENDIX

The survey was made among poultry-purchasing families contacted at 12 large chain food stores in Houston. The stores were well distributed geographically in the city. Therefore, all types of income areas were represented.

During the survey, interviewers were placed in each of the stores on Thursdays, Fridays and Saturdays. However, interviewers were in each store only at specified hours. The hours varied from day to day and week to week to provide a random sampling of the stores operating hours. The hours sample was designed to include during the survey all shopping periods except 12:30 to 3:00 p. m., 5:00 to 7:00 p. m. and after 8:30 p. m. These times omitted often represent low customer patronage hours. Subsequent research in another city has indicated less variation in customer count during the week-end shopping days than originally was supposed.

The store interviews were continued for 6 weeks. The proportion of all poultry customers contacted in each store is not known, but apparently it was at least 80 percent. Field staff members reported a high incidence of repeat contacts during the last weeks of the survey. This indicated relatively complete coverage of the poultry customers of the 12 stores. The indicated frequency with which poultry was bought by the Houston families interviewed also confirms this conclusion. Fewer than 3 percent of the families made a purchase less often than once a month. Ninety-six percent of the families buying at the 12 stores purchased poultry every 2 weeks or oftener.

Since it is impractical to conduct a very long interview in a food store, only the name, address

and telephone number of the customers and permission to interview them in their homes were obtained at the store. Home interviews were made on Mondays, Tuesdays and Wednesdays during the first 6 weeks with Thursdays, Fridays and Saturdays in the stores. After that, follow-up home interviews were made throughout the week until all the families contacted had been visited.

The housewife was interviewed except in instances of single persons or widowers living as a single household.

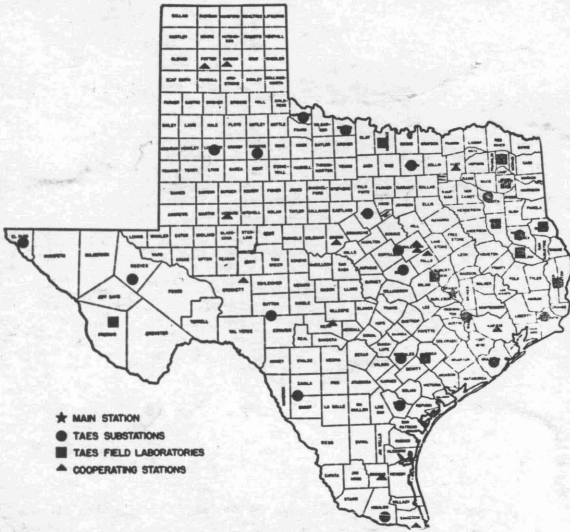
Field interviewers were personnel experienced in interviewing procedures and methods. All attended a briefing and training session and were required to take trial interviews before the survey began. Interviews were checked as to authenticity by a system of random selection provided to the field supervisor.

Telephone interviews were made among half the families with telephone service as a test of this technique. No significant differences were found between answers by this and the home interview method.

In conjunction with the store contact interviews, a special display of mixed chicken parts was featured in each of the 12 stores. The purpose was to determine interest in buying mixed-parts packages. Packages varied as to size, but contained only the meatier parts of the chicken—breast, thighs and drumsticks. Prices of these packages were in line with those of whole cut-up chicken considering that the package contained only the meatier parts.

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State-wide Research



- ★ MAIN STATION
- TAEs SUBSTATIONS
- TAEs FIELD LABORATORIES
- ▲ COOPERATING STATIONS

Location of field research units of the Texas Agricultural Experiment Station and cooperating agencies



The Texas Agricultural Experiment Station is the public agricultural research agency of the State of Texas, and is one of ten parts of the Texas A&M College System

ORGANIZATION

IN THE MAIN STATION, with headquarters at College Station, are 16 subject-matter departments, 2 service departments, 3 regulatory services and the administrative staff. Located out in the major agricultural areas of Texas are 21 substations and 9 field laboratories. In addition, there are 14 cooperating stations owned by other agencies. Cooperating agencies include the Texas Forest Service, Game and Fish Commission of Texas, Texas Prison System, U. S. Department of Agriculture, University of Texas, Texas Technological College, Texas College of Arts and Industries and the King Ranch. Some experiments are conducted on farms and ranches and in rural homes.

THE TEXAS STATION is conducting about 400 active research projects, grouped in 25 programs, which include all phases of agriculture in Texas. Among these are:

OPERATION

- | | |
|--------------------------------------|---------------------------------|
| Conservation and improvement of soil | Beef cattle |
| Conservation and use of water | Dairy cattle |
| Grasses and legumes | Sheep and goats |
| Grain crops | Swine |
| Cotton and other fiber crops | Chickens and turkeys |
| Vegetable crops | Animal diseases and parasites |
| Citrus and other subtropical fruits | Fish and game |
| Fruits and nuts | Farm and ranch engineering |
| Oil seed crops | Farm and ranch business |
| Ornamental plants | Marketing agricultural products |
| Brush and weeds | Rural home economics |
| Insects | Rural agricultural economics |
| | Plant diseases |

Two additional programs are maintenance and upkeep, and central services.

Research results are carried to Texas farmers, ranchmen and homemakers by county agents and specialists of the Texas Agricultural Extension Service

AGRICULTURAL RESEARCH seeks the WHATS, the WHYS, the WHENS, the WHEREs and the HOWs of hundreds of problems which confront operators of farms and ranches, and the many industries depending on or serving agriculture. Workers of the Main Station and the field units of the Texas Agricultural Experiment Station seek diligently to find solutions to these problems.

Today's Research Is Tomorrow's Progress