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CONSUMER USE of TURKEY

James F. Richards, Carroll V. Hess, and Milo H. Swanson

Since the late 1940's turkey consumption in the United States has more than doubled. But turkey still accounts for less than 5 percent of total consumption of red meat and poultry. On an aggregate basis consumer demand for turkey will increase with population; however, consumer demand is affected by many other factors. Income, price of substitute products, and consumer preferences and attitudes greatly determine individual family demand.

It is well established that consumer preference can help create demand for a product. A product that is lower priced than its substitutes does not necessarily dominate the market. In times of increasing prosperity, products which do not possess the characteristics desired by consumers—even if low priced—are rejected by an increasing proportion of consumers. Choice between products is decided to a lesser extent by price and to a greater extent by consumer preference.

Therefore, an industry's success depends partly upon its awareness of and ability to meet consumer needs and wants. Differences among families in consumption level of various products indicate the varying degrees of success with which an industry satisfies consumer desires.

Purposes of this study were to compare: (1) family characteristics of high- and low-level users of turkey, and (2) attitudes, preferences, purchase, and use patterns for turkey. Such comparative information should suggest explanations for variation in turkey consumption levels among individual families. It should also indicate modifications in turkey producing, processing, and marketing which could result in increased consumer satisfaction.

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The Procedure Used

Two graduate home economists, familiar with the turkey industry and its products, personally interviewed householders in the Minneapolis-St. Paul metropolitan area during 1961. Personal letters that explained this University study of consumer preferences and buying practices for various meats and requested consumer cooperation were first sent to the residences. Several days later an interviewer telephoned the consumer to determine if the household was eligible for participation. If so, she arranged a personal interview at the consumer's home.

Interviewers made up to four telephone calls or two personal calls (when the residence had no telephone) in an attempt to arrange the interview. No substitution of residences was permitted by interviewers. However, if the occupant of a residence was not the same as the city directory listing, the new occupant was interviewed.

A random sample of 308 residences, chosen from current city directories for the Twin Cities metropolitan area, yielded 202 completed interviews. Of these, 12 consumers had not used turkey. Because of a special interest in consumers' attitudes toward the turkey fryer-roaster and because only 47 of the 202 completed interviews were with consumers who had used this product, an additional sample of housewives were interviewed. The sampling plan was similar. However, when telephone contact was made, the interviewer asked the consumer if she had ever used a turkey fryer-roaster. Only consumers who replied affirmatively were interviewed. From a random sample of 171 households, 56 interviews were completed. This provided a total of 258 on which to base relationships between turkey fryer-roaster use and other variables.

Acceptable schedules were carefully edited and the information coded and punched on IBM cards. Data were subjected to chi-square analysis to determine the significance of relationships among variables.

Level of turkey use for each family was calculated as the pounds of turkey consumed annually per adult unit.² Families that had used 10 or less pounds were classified as low-level users (101 families); those that had used more than 10 pounds were high-level users (89 families). Adult unit consumption was used rather than the more popular per capita consumption in an attempt to adjust turkey consumption figures on the basis of differences in food intake by children of varying ages. Therefore, average annual consumption of turkey per adult unit per year (6.5 and 19.9 pounds for low-level and high-level users, respectively) is not comparable to per capita consumption but is necessarily higher.

¹ To be eligible a household had to: (1) be operating a kitchen on a regular basis, (2) consist of at least a husband and wife or one parent or guardian and children, (3) buy the majority of meat products used through a retail outlet.

² Adult units for each family were determined with the following scale presented by R. C. Smith, City and Suburban Families' Preferences and Buying Habits for Frying Chicken, Delaware Agricultural Experiment Station Technical Bulletin 329, 1959:

Adults and children over 11 years1.0 adult unitsChildren 5 to 11 years0.8 adult unitsChildren under 5 years0.5 adult units

Turkey in the Family Diet

Housewives were asked to indicate how frequently they served each of the various meats: beef, pork, lamb, chicken, and turkey. The relative importance of each in the family meat diet was then established. Turkey was served far less than beef and pork and also less than chicken (table 1). However, evidence indicated that turkey was competitive with and could be substituted for red meats, but this competition was not vigorous and the degree of substitution was limited.

Table 1. Choice of meat for guests by high- and low-level users of turkey

	Two to four guests*		More than four guests†	
Meat	Low	High	Low	High
		percent	of families	
Beef		58	32	43
Pork	19	21	52	26
Chicken	8	16	8	8
Turkey	1	5	8	23
Total	100	100	100	100
Number of families‡	110	86	108	86

^{*} The relationship between level of turkey use and choice of meat for two to four guests was significant at 0.05 level ($\chi^2=7.82$ with 3 degrees of freedom).

Table 2. Factors considered by high- and low-level users of turkey when deciding what kind of meat to buy

	Level of turkey use*		
Factor	Low	High	
	percent of families		
Family preference	36	30	
Price per pound raw	35	26	
Variety		20	
Others	18	24	
Total	100	100	
Number of families†	109	87	

^{*} The relationship between level of turkey use and factors considered when deciding what kind of meat to buy was not significant at 0.05 level ($\chi^2=4.74$ with 3 degrees of freedom).

[†] The relationship between level of turkey use and choice of meat for more than four guests was significant at 0.01 level ($\chi^2=11.34$ with 3 degrees of freedom).

[‡] Five families did not entertain guests or chose other meats.

[†] Six families gave no answers.

Turkey also competes with chicken broiler-fryers for the consumers' meat dollar, but results of this study and national per capita consumption figures indicate that chicken is the more popular of the two. Nevertheless, turkey meat received more favorable consideration when more than four guests were to be served (table 1).

Family preference emerged as the most important single reason why chicken broiler-fryers were served more frequently than turkey. Family preference was also an important concern of homemakers when deciding what meat to buy (table 2).

It is evident that turkey does not occupy a high ranking position on the consumer meat preference scale. Beef, pork, and chicken all enjoy competitive advantages over turkey in the market.

Family Characteristics of High-and Low-Turkey Users

Information was obtained from each family on gross household income, family size, age of homemaker, education of homemaker, location of residence (urban versus suburban), and occupation of wife.

Gross household income was greater for high-level users of turkey than for low-level users (figure 1). About 84 percent of the high-level users were in the middle (\$400-\$599 per month) or high (\$600 or more per month) income classes compared to only 67 percent of the low-level users.

The proportion of wives who had more than a high school education was greater in the high-level than in in the low-level consumption group —51 percent versus 19 percent (figure 1). However, a significant relationship $(P < 0.01)^3$ existed between gross household income and education of the homemaker: homemakers in middle and high income groups tended to be those with more than a high school education. So, gross household income and education of homemaker appear to be measures of a common socio-economic characteristic of the family.

Level of turkey use was related to family size as measured by adult units and to age of homemaker. Homemakers in high-level consumption families tended to be older—63 percent were over 40 as compared to 35 percent in the low-level group. And high-level group families were smaller than those of the low-level group—39 percent consisted of only husband and wife as compared to 19 percent, respectively (figure 1). A significant relationship (P < 0.01), analogous to that existing between gross household income and education of homemaker, was found between size of family and age of homemaker. These latter two variables may also be viewed as measures of a common family characteristic.

 $^{^{\}rm 3}$ (P < 0.01) means that there is less than 1 chance in 100 that the relationship referred to does not actually exist in the population from which the sample was taken.

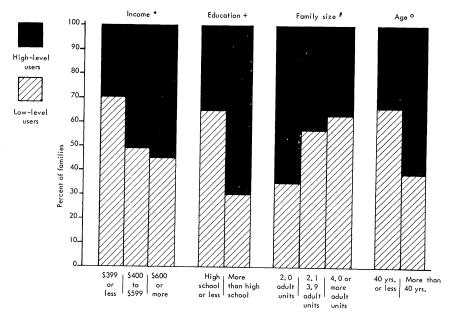


Figure 1. Relationships of family characteristics and level of turkey use.

- * Gross household income per month. Income and level of turkey use were significantly related at 0.05 level ($\chi^2=7.47$ with 2 degrees of freedom).
- + Highest level of formal education attained by homemaker. Education and level of turkey use were significantly related at 0.01 level ($\chi^2=21.29$ with 1 degree of freedom).
- \sharp Family size in adult units. Family size and level of turkey use were significantly related at 0.01 level ($\chi^2=10.87$ with 2 degrees of freedom).
- $^{\circ}$ Age of homemaker. Age and level of turkey use were significantly related at 0.01 level ($\chi^2=12.29$ with 1 degree of freedom).

No important differences were found between the two consumption groups in employment of wife or location of residence. About 30 percent of the wives in each group worked outside the home. Location of residence was divided almost equally between urban and suburban in each group.

These data provide profiles of high- and low-level users of turkey and indicate differences in acceptance of the presently available forms of turkey by various socio-economic groups. Of course, these data cannot illustrate reasons for differences in acceptance by various families and groups. But they can be used to estimate consumption changes which may occur as socio-economic factors change.

For example, increases in the proportion of families in the upper income classes and of homemakers with more than a high school education—changes that would tend to occur concurrently—would likely be associated with an increased use of turkey. Similarly, an increase in the average age of homemakers with a concurrent decrease in family size would likely be related to an increased use of turkey per adult unit.

The extent to which changes in these socio-economic variables can be expected to affect turkey consumption depends upon other conditions. For instance, introduction of new turkey products could certainly affect consumption patterns, as could changes in merchandising and promotion programs for turkey and other meats.

Purchase and Use Patterns and Consumer Preferences for Turkey

Seasonality of Turkey Use

Traditionally, turkey is served on Thanksgiving, Christmas, and New Years. Over 90 percent of the sample families consumed turkey on at least one of these occasions. During the remainder of the year (January-October), only about 57 percent of the sample families used turkey.

Families that served turkey during both the festive and nonfestive periods had a higher annual consumption than those using turkey only during the festive period. However, this difference was greater in the high-level group (20.92 pounds versus 13.91 pounds) than in the low-level group (7.43 pounds versus 6.31 pounds) (table 3).

Comparison of high- and low-level groups indicated that, regardless of the seasonality of consumption, families in the high-level group had a greater annual consumption of turkey than those in the low-level group.

Table 3. Seasonality of turkey use by high- and low-level users

	Lo	w-level			High-level	<u> </u>
Seasonality of use	Average annual consumption per adult unit	Percent of families	Average annual consumption times percent of families	Average annual consumption per adult unit	Percent of families	Average annual consumption times percent of families
	pounds		pounds	pounds		pounds
Festive only Festive and	6.31	64.4	4.06	13.91	20.0	2.81
nonfestive Nonfestive	7.43	22.8	1.69	20.92	76.4	15.98
only	6.11	12.8	0.79	32.83	3.4	1.12
		100			100	
Weighted av	rerage annual /adult_unit		6.54			19.91

Moreover, the proportion of high-level users that consumed turkey during both festive and nonfestive periods was greater than the proportion of low-level users (76 percent versus 23 percent, respectively) (table 3).

Festive consumption of families using turkey during both festive and nonfestive seasons was somewhat below that of families that used turkey only during the festive season (4.31 pounds versus 6.31 pounds for the low-level group and 10.45 pounds versus 13.91 pounds for the high-level group). However, nonfestive consumption of the former families (3.12 pounds and 10.47 pounds for low- and high-level groups, respectively) more than compensated for the lower festive consumption.

Because most families that consumed turkey during the nonfestive period also used turkey during the festive season, only a small part of nonfestive consumption was a substitute for festive consumption; the greater part was supplemental to festive consumption.

Use of Fryer-Roaster Turkey

In general, sample families had not widely used fryer-roaster turkey. One-third of the families were totally unaware of the product; less than one-quarter had used it and the majority of these not more than once or twice. However, use of fryer-roaster turkey appeared related to total turkey consumption. The proportion of high-level turkey users—about one-half—who served a fryer-roaster during a typical year was significantly (P < 0.01) higher than that of low-level users—about one-third (table 4).

Fryer-roaster users consumed an average of more than 5 pounds of this class of turkey per adult unit per year; the total turkey consumption of fryer-roaster users (17.7 pounds) was above that of nonusers (11.0 pounds). So the disproportionately large number of fryer-roaster users in the high-level consumption group is not surprising. In fact, consumption of fryer-roaster turkey probably supplements consumption of other turkey and is often an important determinant of the level of total turkey consumption.

Table 4. Use of turkey fryer-roaster by high- and low-level turkey users

Use of turkey	Level of turkey use*		
fryer-roaster	Low	High	
	percent of families		
Had used	30	51	
Had not used	70	49	
Total	100	100	
Number of families	132	126	

^{*} The relationship between level of turkey use and use of fryer-roaster turkey was significant at the 0.01 level ($\chi^2=12.68$ with 1 degree of freedom).

Table 5. Size of turkey preferred by high- and low-level users of turkey

Size preferred	Level of turkey use*		
	Low	High	
	percent	percent of families	
Less than 8 pounds		3	
8-12 pounds		26	
13 or more pounds	41	<i>7</i> 1	
Total	100	100	
Number of families	100	89	

^{*} The relationship between level of turkey use and size of turkey preferred was significant at the 0.01 level ($\chi^2=48.96$ with 2 degrees of freedom).

Size of Turkey Preferred

Approximately 55 percent of turkey users in the sample—about 70 percent of high-level users and 40 percent of low-level users—preferred a turkey weighing 13 or more pounds (table 5). Size of turkey preferred was significantly (P < 0.01) related to level of turkey use.

The most prevalent reason for preferring this size of turkey was that it was the "right size" for the family or group. However, family size of high-level turkey users was smaller than that of low-level users. An explanation of this seeming paradox may be that high-level users served turkey to guests more frequently than did low-level users. Table 1 data indicate that high-level users were more favorably inclined toward turkey as a meat for guests than were low-level users.

The amount of entertaining done by high- and low-level users might also have differed. If so, inflated adult unit consumption figures for high-level users would result even if turkey was served with equal frequency by both consumption groups. Unfortunately, no information on the frequency of entertaining was obtained in this survey.

The most commonly expressed reason for preferring turkeys weighing 8 to 12 pounds or less than 8 pounds was the same as that expressed for preferring turkeys weighing 13 or more pounds. Respective consumers indicated that each size was the "right size" for the family or group. Since each size was preferred by some people, and often for the same reason, many sizes must be available to satisfy the most consumers.

Fryer-roaster turkey (less than 8 pounds) was preferred by only a small percentage of turkey users. But this does not mean that merchandising of this product is unimportant, particularly since its use accounts for an important proportion of the increased turkey consumption of highlevel users. In addition, the reason many people had not used a turkey fryer-roaster was that they were unaware of the product or unable to find it where they normally shopped. These findings further emphasize the importance of effective promotion and merchandising techniques.

Use of "Skin-tear" and "Parts-missing" Turkey

Minnesota, a leading state in turkey production, exports much of its crop. The "undergrades," such as birds with excessive skin tears or parts removed, are generally undesirable for interstate shipment. These birds usually appear in local markets, such as the Twin Cities, at prices below those prevailing for grade A turkeys.

Among turkey users interviewed, slightly more than 20 percent had used either "skin-tear" or "parts-missing" turkey. No difference in the proportion of families which had used "parts-missing" turkey was noted between high- and low-level users—22 percent in each group. The percentage of high-level users who had purchased a "skin-tear" turkey was slightly, although not significantly (P > 0.05), higher than that of low-level users (27 and 17 percent, respectively).

Close to 90 percent of the families that had used either "parts-missing" or "skin-tear" turkeys claimed they would use them again. These findings indicate that roughly equal proportions of high- and low-level users were acquainted with these "undergrade" products and found them satisfactory. No information was obtained on how frequently these products were purchased.

Purchase of Excess Turkey

Survey results indicate that the purchase of turkey in excess of immediate family needs was not significantly (P>0.05) related to level of turkey consumption. Approximately 27 percent of the families had bought excess turkey but no information on how frequently they followed this practice was obtained. The lack of significance of the difference between high- and low-level users (32 versus 24 percent, respectively) concerning this practice indicates that it was not particularly characteristic of either group.

Planed versus Impulse Purchase

Many foods are purchased on the basis of an "in-store" or impulse decision. Such products are generally small in size, low in total price, and prominently displayed. Whole eviscerated turkey is **not** purchased predominantly on an impulse basis. This product weighs 4 pounds at the minimum and the total cash outlay is relatively high. In addition, a survey of retail stores in the Twin Cities metropolitan area indicated that turkeys usually were not displayed prominently or attractively. It is not surprising then that three-quarters of the families, regardless of turkey consumption level, purchased turkey on a planned basis during the nonfestive period of the year.

Improvements in merchandising methods would more effectively bring turkey to the attention of consumers and could increase homemakers' consideration of turkey when planning meals. However, the size and total cost of whole eviscerated turkey still would deter impulse purchases.

Factors Considered when Selecting a Turkey

No significant relationship existed between level of turkey use and factors considered when selecting a turkey. Both high-level and low-level users considered color of skin, plumpness, and weight or size as the three most important features (table 6).

The fact that consumers considered skin color and plumpness important indicates that there may be a lack of uniformity of these features among turkeys offered for sale. Although high- and low-level users agreed on selection criteria, low-level users may have been below average in turkey consumption partly because they could not find a bird which met their standards. Continued emphasis on improvement of quality and uniformity of turkeys with regard to plumpness and skin color is important, along with provision of a wide range of sizes. The homemaker's concern with size (table 6) reemphasizes the necessity of having a wide range of sizes available if turkey is to realize its potential share of the consumer's meat dollar.

Desirable and Undesirable Features of Turkey

Consumers were asked to indicate desirable and undesirable features of turkeys weighing over 10 pounds. No significant differences in responses existed between high- and low-level users. So results for the two consumption groups were combined and are presented in figure 2.

Table 6. Features considered by high- and low-level users when selecting a turkey weighing more than 10 pounds

The control of the co	Level of turkey use*		
Factor	Low	High	
	percent of families		
Plumpness	26	30	
Skin color		25	
Weight or size	23	22	
Others	20	23	
Total	100	100	
Number of families†	94	81	

^{*} The relationship between level of turkey use and features considered when selecting a turkey weighing more than 10 pounds was not significant at 0.05 level ($\chi^2=1.59$ with 3 degrees of freedom).

 $[\]dagger$ Fifteen families either did not view birds personally before selection or gave no answer.

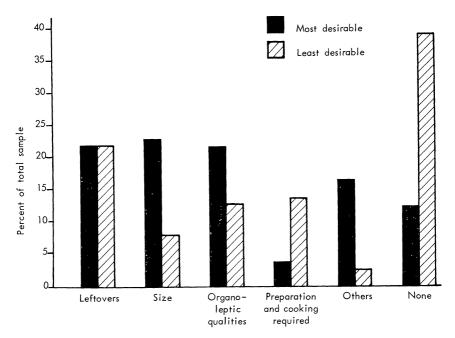


Figure 2. Percentage of total sample indicating selected characteristics of turkey weighing more than 10 pounds as most desirable or least desirable.

When the question was asked, no stipulations were imposed as to type of meal or number of persons served. In addition, no alternate meats were specified. Therefore, interpretation of these answers is limited to enumerating features mentioned as being desirable and undesirable.

Size, "leftovers," and organoleptic quality⁴ were the three most important desirable features. Along with "preparation and cooking involved," they were also the most important undesirable features. In view of the freedom from restrictions these results are not surprising; they emphasize that considerable diversity of opinion is present among consumers and that features of large turkeys may sometimes deter use and at other times encourage it. For example, "leftovers" may be desired on one occasion but not on another.

The lack of agreement on the desirability of the organoleptic quality of large turkeys may indicate distinct differences among consumers in definition of what constitutes desirable flavor, juiciness, or texture. But it may also reflect differences in the effect of preparation or differences between individual birds. Future investigations may clarify these points.

The fact that about 40 percent of the families had no criticisms of the large turkey might be misleading. If the type of meal had been so

⁴ Organoleptic quality refers to quality judged by the senses of taste, smell, and touch (mouth feel).

stipulated, some of these homemakers may have criticized turkeys weighing over 10 pounds.

Fresh versus Frozen Turkey

Consumers who had used both fresh and frozen turkey were asked to express their preference, if they held one. In both the high- and low-level consumption groups, approximately three times as many consumers preferred fresh turkey over frozen. About one out of five consumers had no preference.

In most cases, preference for the fresh form was based on belief that its organoleptic qualities were superior to frozen turkey. Moreover, with fresh turkey, freshness (time since processing) was assured and no thawing was required prior to use. Frozen was preferred because it was convenient for storing and preparing, it was cleaned or processed better than fresh, and a wider selection was available.

The turkey industry presently markets the vast majority of turkeys in the frozen form—unfortunately, this is not the form preferred by most consumers. However, large-scale processors must freeze turkeys because of the extreme seasonality of demand. The cost of expanding plant capacity so that turkeys could be marketed fresh during the festive season is not economically justifiable. These facilities would be idle most of the year and fixed costs would force processing costs to unrealistic levels.

Therefore, it is important to determine if differences in flavor, juiciness, and tenderness between fresh and frozen turkey actually exist or if consumer preference for fresh turkey due to superior organoleptic quality is unfounded.

Purchase and Use Patterns and Consumer Evaluation of Turkey Fryer-Roasters and Turkey Products

The proportion of families that had used fryer-roaster turkey was greater among high-level than among low-level users but, generally, the majority of consumers had never served this product. However, fryer-roaster consumption made a relatively important contribution to total turkey consumption of high-level users. Therefore, the first part of this section concerns information obtained on buying habits and preferences of fryer-roaster users and implications of these findings for the turkey industry.

Families that had heard of but had not used the turkey fryer-roaster were asked their reasons for not using the product. Approximately 80 percent of the homemakers gave relevant answers; of these, close to one-half had not seen the product in the store or had not even considered

using the product. The fact that 20 percent of the homemakers were not able to provide meaningful answers further emphasizes the lack of awareness of the product.

When any relatively new or different product appears on the market, its future is determined ultimately by consumer evaluation. Although the turkey fryer-roaster had been on the market for about a decade, 75 percent of the population still had not used one and about half of these families never heard of it. So many families never adequately evaluated the product. Some increase in fryer-roaster consumption could logically be expected if the product was more effectively presented.

Information on how fryer-roaster turkey has been used and on attitudes of users may give some idea of the type of market which fryer-roaster turkey can satisfy:

- 1. Over 60 percent of fryer-roaster users served this product usually or only for regular family meals.
- 2. Roasting was three times as popular as all other preparation methods combined.
- 3. Fryer-roaster users considered the same features—size or weight, color of skin, and plumpness—most important when viewing turkey fryer-roasters as when viewing large turkeys.
- 4. Consumers of the fryer-roaster found it to be of a desirable size, easier to prepare and cook, and with no undesirable leftovers in comparison with larger turkeys. Close to two-thirds of the critical comments on the turkey fryer-roaster concerned poor organoleptic quality in comparison to large turkey. However, almost one-half of the users of turkey fryer-roasters made no critical comments about the product.

Fryer-roaster turkey presently accounts for a small but important portion of total turkey consumption. If this product was more generally available, its contribution to total turkey consumption could increase. However, such an increase may be tempered by its poor organoleptic quality as compared to larger turkeys. In fact, appearance of the boneless turkey roast on the market makes the future of the turkey fryer-roaster extremely uncertain. The turkey roast has the advantages of the turkey fryer-roaster and, because it is manufactured from mature turkeys, should offer superior organoleptic quality.

Table 7. Use of various turkey products

Product	Percent of families that used
Frozen turkey pie	72.3
Frozen turkey dinner	
Stuffed turkey	9.9
Turkey parts	
Cut-up turkey	
Other turkey products	

Table 8. Features of turkey products most commonly disliked

Product	Feature	Percent of total responses
Frozen turkey pie	Lack of meat	10
, ,	Too much gravy	10
	Pie too small	9
	Others	38
	None	33
Frozen turkey dinner	Too small	18
,	Vegetables	11
	Lacks flavor	12
	Others	26
	None	33
Stuffed turkey	Dressing	77
,	Others	4
	None	19

Several references have been made to the possibility that turkey products can expand the everyday market for turkey meat. Some turkey products have been on the market for several years. During this survey, indication of the present level of use of these products was obtained from consumers.

Frozen turkey pies and frozen turkey dinners were the two most popular products, used by 72 percent and 52 percent of the families, respectively. Stuffed turkey, turkey parts, cut-up turkey, and other products had been used by much lower percentages of the families (table 7).

Difference in level of use among these products is not necessarily the result of consumer preference. Differences in awareness of products by consumers and differences in availability in retail stores probably accounted for a large amount of the variability in level of use.

Users of frozen turkey pies, frozen turkey dinners, and stuffed turkey were asked to evaluate each product. For each, the convenience provided was by far the most desirable single feature. However, their convenience did not preclude the possibility of deficiencies. For example, 77 percent of users of stuffed turkey criticized the stuffing—the very item that had been added for increased convenience. In addition, over two-thirds of the consumers criticized even the widely used frozen turkey pies and dinners (table 8).

Turkey parts, cut-up turkey, and other turkey products—the most popular of which were smoked turkey and turkey roasts or rolls—had been used to such a limited extent that no meaningful evaluation could be made.

Implications

Consumption of turkey during the January-October period is mostly supplemental to consumption during the festive season. The greatest opportunity for increasing turkey consumption is by stimulating use during the nonfestive period.

The above average turkey consumption of high-level users arises partly from use of fryer-roaster turkey, particularly for regular family meals, and partly from use of larger turkeys for entertaining during the nonfestive period.

Because leisure time available to families is expected to increase, the amount of entertaining and hence the level of turkey consumption may also increase. However, the largest potential market for turkey is as a meat for regular family meals. An increased variety of turkey products—available in convenient forms, requiring a limited preparation time, and providing for portion control—could expand this everyday—market for turkey.

The fryer-roaster has not been widely used and apparently cannot command a large share of this everyday market. In comparison to larger turkeys the fryer-roaster size is a desirable feature. However, in comparison to many red meat cuts and chicken fryers, the fryer-roaster turkey is at a disadvantage from a convenience and portion control standpoint.

Eviscerated turkey is—and will likely continue to be—the most important form in which turkey is sold. Because of this and because of the diversity in size preference and the importance of size to consumers, eviscerated turkey needs to be available in a wide range of weights—from the fryer-roaster to those over 16 pounds. In addition, uniformity of skin color and plumpness are necessary to assure maximum use. And the criticism of turkey fryer-roasters for poor organoleptic qualities indicates that efforts to improve these features are warranted.

The problem created by preference for fresh turkey by many consumers, in spite of the fact that most turkeys are marketed in the frozen form, must be resolved. Until the unfavorable image of frozen turkey is modified, any increase in consumer use of turkey, especially in the eviscerated form but also in the form of new frozen products, is likely to be disappointing.

The family characteristics of high- and low-level users of turkey indicate that the forms of turkey presently available are not used equally by all socio-economic groups. In consumer education and new product development programs, special attention needs to be given to certain family groups. Families with low income, those in which the wife has no education beyond high school, those with several children, and families in which the wife is under 40 are frequently below average in turkey consumption.

Consumer demand for more "built-in" services in food products provides a favorable climate for introduction of new and convenient-to-use turkey products. However, successful introduction of new turkey products to the market requires that particular attention be given to all quality attributes and that the product be vigorously merchandised.