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## FOR PIES AND CANNED AND FROZEN CHERRIES

Cherries ¿

# in DALLAS ..... DETROIT ..... KANSAS CITY

### MARKETING RESEARCH REPORT No.116

UNITED STATES DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE

WASHINGTON, D.C.

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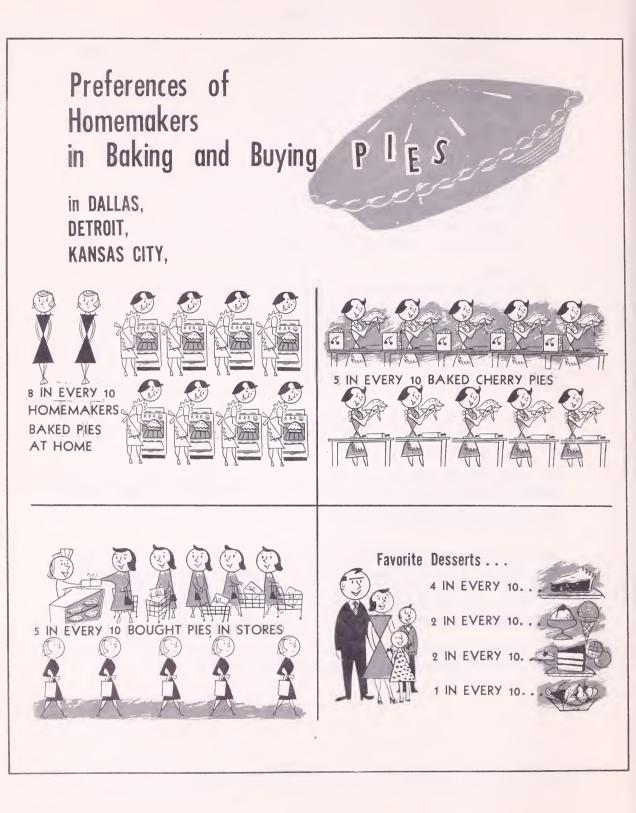
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#### HOMEMAKER PREFERENCES FOR PIES AND CANNED AND FROZEN CHERRIES IN DALLAS, DETROIT, AND KANSAS CITY

By Daniel B. Levine, social science analyst Market Development Branch

#### HIGHLIGHTS

Pie baking is still a widely practiced art in the home; in all, some 4 in 5 homemakers in each of the 3 cities, Dallas, Detroit, and Kansas City, had baked at least one pie within the preceding year, according to the results of a sample survey conducted in February 1955. About half of the homemakers had purchased one or more pies within the past year. Only 1 in 20 had not baked or bought a pie within the year.

Apple pie was baked by more homemakers than any other pie. Over 80 percent of the home pie bakers in each city had baked at least one apple pie in the past year. Following apple pie in incidence of home baking were cherry, pumpkin, lemon cream, and chocolate pies.

The average housewife in the 3 test cities baked pies fairly frequently in the past year but did not restrict herself to any one kind of pie, according to the results of the survey. Roughly speaking, out of every 10 pie bakers, 4 baked pies once or more a week; 2 baked between 2 and 3 times a month; only 1 baked once every month or less. Specific kinds of pies, on the other hand, were baked less than 6 times a year by about half of the homemakers, whereas only 10 to 20 percent baked any one pie as often as 2 or more times a month.

More than half of the home pie bakers in each city had baked at least one cherry pie in the past year; the proportion baking cherry pie in each city was 57 percent in Detroit, 66 percent in Dallas, and 75 percent in Kansas City.

The "tart, tangy taste" of the cherry pie and the "family's asking for it because we like it" were frequent reasons given for baking cherry pies. Other replies included "cherry flavor," "variety - something different," and "pretty, looks good to eat - we like the red color."

Canned red sour cherries were used by more homemakers in baking cherry pies than all other cherry products combined. Approximately 8 in every 10 homemakers had used canned red sour cherries for this purpose within the year; only 2 in 10 or less had used other forms of cherries in baking pies. Pie was considered the favorite dessert by a majority of both men and women, followed by ice cream and cake, cookies, and other baked goods. According to homemakers, between one-third and one-half of all family members in each city chose pie as their favorite dessert. About 1 in 5 chose ice cream; somewhat fewer preferred cake, cookies, or other baked goods.

Canned red sour cherries (water pack) were used for some purpose other than as a pie filling by relatively few of the homemakers in each city. Altogether, only some 14 percent in Detroit and 19 percent in both Dallas and Kansas City had found an alternative use for the water-pack cherry. Many respondents said they "didn't know how to use them except in pies," "didn't have a recipe calling for them," or "just haven't thought of it--never think of it except for pies."

In Dallas, only 19 percent of the homemakers had heard of frozen cherries; as many as 51 percent in Detroit and some 64 percent in Kansas City were aware of frozen cherries. Awareness of the product and use of the product were two different things. Only some 4 percent in Kansas City, and even less in Dallas and Detroit, had used frozen cherries for some purpose other than pies.

Awareness of the availability of canned red sour cherries in syrup varied considerably among homemakers in the 3 cities. Roughly speaking, out of every 10 homemakers only 2 in Dallas and approximately 4 in Detroit and Kansas City were aware of the product. Therefore, a majority in all 3 cities reported that they had never heard of canned red sour cherries in syrup. As with frozen cherries, relatively few -- 5 percent or less -- of the homemakers had used the product for some purpose other than as a pie filling.

The Sample.--The results presented in this report are based on a sample survey of households in Dallas, Tex.; Detroit, Mich.; and Kansas City, Mo. A total of 1,053 homemakers was interviewed in the 3 cities, as follows: 361 in Dallas, 405 in Detroit, and 287 in Kansas City.

#### BACKGROUND

This research was undertaken by the Agricultural Marketing Service to assist industry in expanding the consumption of red sour cherries -- a product principally used as a pie filler. To provide data on the use and market potential of red sour cherries, household consumer surveys were conducted in 3 cities -- Dallas, Tex.; Detroit, Mich.; and Kansas City, Mo.

Since the major use of red sour cherries is as a pie filler, consumers were first asked to discuss their pie baking habits, such as what pies they baked and what fillers they used, in order to provide a complete framework for the discussion. In addition, specific questions were included on the use of cherries, both as a pie filler and as a dessert. The data developed are of importance to such groups as cherry growers and processors, producers and processors of fruits other than cherries, bakeries, producers of flour and ready-mix bakery products, and other industries producing or processing commodities for consumption in pies or as desserts. Part of the problem faced by the cherry industry arises from an upward trend in production. Between 1944 and 1951, production of cherries rose from 112,000 tons to 158,000 tons. Although production declined somewhat after 1951, the change was due to natural factors, such as adverse weather, rather than manmade curtailment; realistic future expectancy is for continued increased production which, under current conditions, would somewhat exceed expected demand.

The cherry industry is also facing a change in merchandising practices. In recent years, some of the fruit in consumer-size containers has been marketed in a smaller can, No. 303, rather than in the No. 2 size can. Although this change may not have created dissatisfaction for many fruits which are served as portions, it is the feeling of the cherry industry that the situation is quite different for those canned fruits, such as red sour cherries, used in such products as pies which require a certain minimum volume to make an adequate filling. The No. 2 can contains 19 to 21 ounces of product whereas the No. 303 can contains 15 to 17 ounces.

The trend to the smaller can has been quite marked. Well over 2 million cases of cherries were packed in the No. 2 can in 1952; only 375,000 cases of the 303 can were packed in that year. In contrast, only 850,000 cases of the No. 2 can were packed in 1954, while over 1.1 million cases were packed in 303 cans. The effect on the consumer of this change to a smaller can, as well its reaction on future purchases of this product, is of considerable importance to the industry.

#### SCOPE OF STUDY

The general objectives of the study were:

(1) To determine the proportion of homemakers in the areas surveyed who baked pies during the last year before the study was made, how often they baked pies, the kind of pies baked, and the different pie fillings used.

(2) To develop information on the attitudes and opinions of homemakers on home pie baking, such as the reasons for baking pies at home, use of selected fillings, and reasons for not baking at home.

(3) To determine the proportion of the homemakers surveyed who baked cherry pies during the year, how often they baked cherry pies, and the different products used by the homemakers in baking pies.

(4) To develop information on the attitudes and opinions of homemakers toward baking cherry pies, such as the reasons for baking cherry pies, likes and dislikes for each of the cherry products used in pie baking, awareness and adequacy of can size, and reasons for not baking cherry pies.

(5) To develop information on the attitudes and opinions of homemakers toward the use of cherry products for purposes other than pie baking, such as the reasons for using the products, complaints, and reasons for not using cherry products.

(6) To determine the proportion of the homemakers buying pies during the year, how often they bought pies, which pies they bought, and the reasons for buying rather than baking pies.

### THE SAMPLE 1/

Dallas (Tex.), Detroit (Mich.), and Kansas City (Mo.) were selected for study for these reasons:

(1) The level of consumption of red sour cherries in these three cities, based on the experience of packers, was thought to be relatively high in comparison with that in other principal cities.

(2) Consumers in these areas had the opportunity to select their purchases of cherries from red sour pitted cherries packed in water, packed in syrup, and frozen, and from cherries packed in more than one can size.

(3) The three cities represent different marketing areas in terms of regional location and consumption habits.

In each of the cities a sample was drawn to represent all private house holds within the city limits and, in certain cases, within selected suburban areas. The person interviewed in each household was the one who had primary responsibility for buying and preparing the food. The number of interviews taken was 361 in Dallas, 405 in Detroit, and 287 in Kansas City.

For ease of presentation and to eliminate repetition, the analysis is given, for the most part, in terms of general findings which were fairly similar in each of the cities. In those cases where important differences were found to exist between the cities, they are brought to the readers' attention. It should not be construed from this approach that the data can be combined, nor should the results be projected beyond the limits of the three cities. To the contrary, each city is always to be considered separately, as each sample is representative of its universe only.

In each city, the sampling procedure was applied to the city directory and interviewing took place at specified addresses. Interviewing took place simultaneously in each of the cities during February 1955, because this month is traditionally one of comparatively high cherry consumption.

Since the estimates shown for each city are based on a sample, they may differ somewhat from the figures that would have been obtained if a complete census had been taken. As in any survey work, the results are also subject to errors of response and nonreporting; therefore, in comparing results obtained from the three cities, only differences which are statistically significant are discussed.

<sup>1/</sup> See appendix, page 19, for a more detailed discussion of the sample design.

The following illustrations indicate the order of magnitude of the sampling errors for some typical statistics for each of the cities:

- 1. Some 85 percent of the homemakers in Dallas had baked at least one pie within the past 12 months. The standard error of the estimate of 85 percent is roughly 2.4 percentage points. The chances are about 2 in 3 that the estimate from the sample differs from the results which would be obtained from a complete census by less than the standard error indicated above. That is, we estimate with chances about 2 out of 3 that the actual figure lies between 83 percent and 87 percent.
- 2. About 57 percent of the home pie bakers in Detroit were cherry pie bakers. We estimate with chances about 2 in 3 that the true percentage would fall between 53 percent and 61 percent.
- 3. Canned red sour cherries in syrup had been used for pie baking purposes by approximately 11 percent of the cherry pie bakers in Kansas City. For a figure of this size the estimated range, using 2 chances in 3, within which the true estimate might be expected to fall is 8 to 14 percent.

#### SURVEY RESULTS

#### Home Pie Bakers

Who bakes pies at home.--Most of the housewives interviewed in each of the 3 cities bake pies: 85 percent of the homemakers in Dallas, 82 percent in Detroit, and 84 percent in Kansas City said that they had baked at least one pie within the past year. Over half of all homemakers baked at least one cherry pie and a similar proportion bought pies during this period. A rather small proportion, only 1 in 20, did not bake pies or buy them (tables 1 and 6).

Table 1.--Proportion of all homemakers who baked or bought pies in the past year, by city

Replies	Dallas	Detroit	Kansas City
	Percent	Percent	Percent
Baked pies	85	82	84
Baked cherry pies	56	51	66
Bought pies	50	55	51
Did not bake or buy	6	6	5
Number of homemakers	361	405	287

As might be expected, relatively more pie bakers were found among homemakers with medium-sized (3 or 4 family members) or large families (5 or more family members) than among those with small families (1 or 2 members). Between 85 and 96 percent of the homemakers having medium-sized or large families had baked pies within the past year; slightly over 70 percent of those with small families were pie bakers. However, home pie baking is widely practiced irrespective of family size (tables 2 and 7).

Table 2.--Proportion of women who bake pies at home, by size of family and by city

Size of family	Dallas	Detroit	Kansas City
	Percent	Percent	Percent
Small (1 or 2 persons) Medium (3 or 4 persons) Large (5 or more persons) -		71 84 94	75 92 88

In Dallas and Detroit, the extent of pie baking was somewhat higher among homemakers in the middle-income group than among those in the lowincome group. Changes between the middle- and high-income groups were negligible in Detroit, whereas in Dallas the proportion of pie bakers in the high-income group was the same as that shown for the low-income group. In Kansas City, on the other hand, differences in income were not reflected in the incidence of home pie baking (tables 3 and 8). Neither the amount of schooling received by the homemaker nor her age appeared to have any overall effect on her pie baking activity (tables 9 and 10).

Table 3.--Proportion of homemakers who bake pies, by income group and city

Income group	Dallas	Detroit	Kansas City
Low (under \$4,000) Middle (\$4,000 - \$6,499) - High (\$6,500 and over)	Percent           83           90           83	<u>Percent</u> 73 86 84	<u>Percent</u> 82 86 85

In summary, then, the extent of home pie baking, for the most part, is sufficiently widespread, even among those with small families, little education, or low income, as to be considered almost independent of these usual economic and demographic criteria.

Reasons for baking pies at home.--The reasons people give for their actions provide a useful and meaningful picture of their feelings on the subject studied. In the current study, therefore, each homemaker was asked a series of opinion questions in order to elicit those factors which she felt were important to her.

In answer to the question, "Why do you bake pies?" around half of the home pie bakers in each city mentioned some aspect of flavor, the usual answer being that homemade pie tastes better than bakery pie. The texture of the crust also was an important item to the home pie baker. About 57 percent in Dallas, 29 percent in Detroit, and 34 percent in Kansas City said they baked rather than bought pies because they could make a better and more tender crust. The ability to "season to taste" the home-baked product or to add or delete ingredients as desired was another reason heard quite frequently (table 11). Most women, incidentally, spoke freely and were quite positive about their reasons for baking pies at home. Few, however, were quite as emphatic as the respondent who completed her answer to the question with great finality, "at least when I bake a pie, I'm sure what's in it."

Reasons for not baking pies at home.--Of the respondents interviewed, 15 percent in Dallas, 18 percent in Detroit, and 16 percent in Kansas City had not baked a pie within the past year. One of the more important reasons given for not baking at home was that the "family was too small." Lack of time to bake," and "eat most meals out" were other important reasons given (table 12). Kinds of pies baked.--Apple pie was baked by more of the homemakers interviewed in the three cities than any other pie. This is not the number of pies baked but simply the proportion of home bakers who had made each of these pies. Over 80 percent of those who baked pies in Dallas, Detroit, and Kansas City had made at least one apple pie in the last year. The comparable proportion for those baking cherry pie ranged from a low of 57 percent of the homemakers who baked pies in Detroit, to 66 percent in Dallas, to a high of 75 percent in Kansas City. Pumpkin pie ran from 49 percent in Dallas to 71 percent in Kansas City. Lemon cream pie bakers comprised around 55 percent in each city, whereas between 39 and 57 percent of the home bakers had baked a chocolate pie within the past year (table 13).

About half of the home pie bakers interviewed in each city had made 6 or more different kinds of pies within the past year; about 1 in 20 had made only one kind of pie (table 14).

Frequency of baking pies.--With the thought in mind that "how often" is equally as important as "what is baked," the pie-baking homemaker was asked how often she had baked pies within the past year. The answers indicate that the average homemaker had baked pies fairly frequently but did not restrict herself to any one kind of pie. Roughly speaking, out of every 10 pie bakers, 4 baked pies once a week or oftener; 2 baked between 2 and 3 times a month; only 1 baked once every month, or less often. Of the individual pies, cherry pies were baked less than 6 times a year by about onehalf of the homemakers, whereas only 10 to 20 percent baked cherry pies as often as 2 or more times a month. The pattern was much the same for other kinds of pies (tables 15, 16, and 17).

The large difference between how often a homemaker bakes pies in general and how often she makes a specific kind of pie is even more clearly illustrated in terms of average frequency of baking. 2 For example, on the average, home pie bakers interviewed in Dallas made pies on some 37 different occasions in the past year, as compared with an average of 30 and 31 times, respectively, for those who baked pies in Detroit and Kansas City. Turning to specific kinds of pies, apple, which outranked all other pies, had been baked only some 10 times in the past year, on the average, by the housewife in Dallas and in Kansas City, and 13 times by her counterpart in Detroit. Cherry pie was baked less frequently -- about 6 times within the past 12 months in both Detroit and Dallas, and 7 times in Kansas City (table 4).

The frequency of baking -- that is, the number of times pies were baked within the past year -- increased with family size. Among homemakers interviewed in Dallas, for example, the average frequency of baking varied from 2 times a month for the small family to around 4 times a month for the mediumsize and large families. Homemakers in Detroit and Kansas City also showed the same pattern (tables 18 and 19).

<sup>2/</sup> For purposes of this study, the term "average frequency of baking" refers to the median point. The median is defined as that point which divides the distribution into two equal groups, one with frequencies above the median and the other having frequencies below the median. The medians are based on the distribution of homemakers who had baked pies within the past year.

Home pie bakers with large families were more likely to bake more than one pie at a time as compared with those pie bakers having small families. In Dallas, 7 in 10 pie bakers with large families (5 or more members) made 2 or more pies at one time. The comparable proportion among homemakers with small families was only 3 in 10. The same was true for homemakers in Detroit and Kansas City -- as family size increased, so did the likelihood that more than one pie would be baked at a time (tables 20, and 21).

	Average tin	nes per year pies	were baked
Kind of pie	Dallas	Detroit	Kansas City
All pies Apple Cherry Peach Coconut Chocolate Lemon Pumpkin	37 10 6 7 7 11 8 3	30 13 6 5 5 5 8 4	31 10 7 5 7 7 6 5

Table 4.--Average number of times per year pies were baked by the home pie baker, by kind of pie and by city

Pie most popular with family.--When homemakers were asked "Which pie is most popular with your family?" it was found that apple was considered the most popular home-baked pie by many homemakers in each of the cities. In fact, no other pie could be said to even approach apple pie in terms of popularity. Some 45 percent of the home pie bakers in Detroit chose apple pie as the family favorite; the comparable proportion in Dallas choosing apple pie as the favorite was 28 percent and, in Kansas City, 25 percent. Following apple pie in overall popularity were chocolate cream, lemon cream, cherry, coconut cream, and peach pie. Home-baked cherry pie, incidentally, ranged in popularity from a low of 4 percent among families in Detroit to 9 percent in Dallas to a high of 19 percent in Kansas City (table 22).

Fillings used.--The homemakers were also asked what type of fillings they used in baking pies. In the case of fruit pies, fresh and canned fruit were used by a majority of the pie bakers. Some three-fifths of the home bakers in Dallas and four-fifths in both Detroit and Kansas City reported using fresh fruit for pie baking. Canned fruit was used by 84 percent of the home pie bakers in Dallas, 74 percent in Kansas City, and 67 percent in Detroit. The prepared fruit filling, that is, the fruit product containing sugar, starch, and other such ingredients, and frozen fruit had been used by about 1 homemaker in 10.

In the case of cream and other pies, fillings made from a prepared dry mix or pudding as well as their own preparation (made by combining the basic ingredients) were discussed with respondents. Between 85 and 94 percent of those who baked a cream pie said they made their own fillings from the basic ingredients. Between one-fourth and one-half of the homemakers were using the prepared type of mix to make pie fillings (table 23).

### Reasons for using each filling:

(1) Fresh fruit.--Flavor appeared to be most important in the mind of the home pie maker as a reason for using fresh fruit in baking pies. When asked why they used this filling, between 70 and 80 percent of the homemakers responded in terms of flavor, using such phrases as "fresh fruit gives a pie a superior flavor," "a true flavor," and "a true fruit flavor." The cooking properties of fresh fruit, such as its ability to retain shape, its tenderness, and the ability to season the fruit to taste, were also mentioned frequently. Other reasons given for using fresh fruit were, "it's just as cheap as other types" (economy) and "its better for you, has more vitamins" (table 24).

(2) Canned fruit.--Convenience was the predominant factor in the use of canned fruits in baking pies. Out of every 10 pie bakers interviewed in each city, about 6 in Detroit, 7 in Kansas City, and 8 in Dallas mentioned some aspect of convenience. "Quick and easy to prepare; saves time," "ready to use," and "easy to store and convenient to have on hand" were the more common replies to the question. A companion reply was availability, which was mentioned by about 4 in 10 home pie bakers in each city, followed by price and economy and, finally, some aspect of flavor (table 25). In essence then, the great appeal of canned fruit for pies is its convenience in use and its ready availability, as compared with the flavor and cookingproperty appeal of fresh fruits. Or as one homemaker said, "Fresh fruits have a personality that canned fruit doesn't have."

(3) Frozen fruit and prepared fruit mixes.--Because the number of users of each of these fillings is relatively small, only broad statements are possible. For comparative purposes, however, separate data are presented in tabular form in the appendix. As was true of canned fruits, the greatest appeal of both frozen fruit and prepared fruit mixes was their convenience of use. In the case of frozen fruit, flavor was equally important (tables 26 and 27).

(4) Prepared dry mix or pudding.--Here again convenience scored heavily in the minds of the home pie bakers. Around 90 percent of the women who had used a prepared dry mix or pudding mentioned convenience of use when asked why they used this particular type of preparation. Popular phrases were, "it's ready to use and quick and easy to prepare -- don't have to add anything," "it's easy to store and convenient to have on hand," "no danger of spoilage," and so on. Next in importance to the homemaker were cooking properties, economy and flavor -- each of which was mentioned by about one-fourth of the homemakers in each of the cities (table 28).

Favorite dessert.--In addition to learning the respondent's favorite dessert, she was asked, insofar as possible, to indicate the favorite dessert of each member of the household. In considering the results, of

course, the possible effect on the response of asking for such information during a winter month (February) should be kept in mind. According to the replies, pie was the overwhelming favorite of both men and women. Approximately half of the men and women in Dallas selected pie; in both Detroit and Kansas City, the proportion naming pie as the favorite dessert was approximately a third. Ice cream, parfaits, and other frozen desserts were next on the list of favorite desserts, being selected by between 18 and 26 percent of the men and women. Next in order came cake, cookies, and other baked goods; puddings, jello and custards; and fresh, cooked, and canned fruit. In addition to indicating the favorite desserts of both men and women, the question also revealed that men and women in each of the three cities have similar tastes for desserts. For most of the desserts mentioned, the proportion indicating a specific favorite dessert was much the same for both men and women (table 30).

#### Use of Selected Cherry Products

One of the major objectives of this study was to provide specific information on the use of and opinions about the various forms of cherries used in pie baking.

Who baked cherry pies.--Between 57 and 75 percent of the home pie bakers surveyed had baked at least one cherry pie in the past year. In the main, cherry pie bakers exhibited the same characteristics as all pie bakers. The age of the homemakers, for example, did not appear to affect the extent of cherry pie baking within any one city, although differences did exist, of course, between cities. In similar fashion, the middle- and high-income groups had a larger proportion of cherry pie bakers than did the low-income group, as did medium- and large-size families as compared with the small family. Educationwise, respondents with some high school or college training were more likely to be cherry pie bakers than were those with grammar school training.

Reasons for baking cherry pies.--Among those women who baked cherry pies, "tart, tangy taste" and "cherry flavor" were frequent answers to the question, "Why do you bake red sour cherry pies?" Altogether, between 30 and 65 percent mentioned "tart, tangy taste" as an important attribute, and around 20 percent commented favorably on the "cherry flavor." Another reason given by many homemakers was simply "the family asks for it, we like it." Less frequent, but still important reasons from a marketing and promotional standpoint were "variety, something different," "pretty, looks good to eat, like the red color" and "it's our favorite pie." Then there are those answers which defy classification, such as that given by one respondent who stated, "I'm moody sometimes. I may want a cherry pie one day and a cream pie the next. It's like asking why you eat salt -- sometimes your system needs it!" (table 31).

<u>Reasons for not baking cherry pies.--Homemakers</u> who had not baked a cherry pie within the last year were composed of two groups: Those who had never baked a cherry pie, and those who had baked cherry pies in years previous but did not bake them any more. For the most part, the distinction was academic, since the same reasons were set forth by homemakers in each group -- namely, a dislike of either the cherry pie or the "sour, bitter taste" of the cherries. Among other reasons mentioned were "I don't bake good cherry pies" and "can't eat tart fruit for health reasons" (tables 32 and 33).

Use and opinions of selected cherry filling.--As expected, canned red sour cherries in water pack were used by more housewives in baking cherry pies than all other cherry products combined. Some 81 percent of the cherry pie baking homemakers interviewed in Detroit, 87 percent in Kansas City, and 95 percent in Dallas, had used canned red sour cherries in baking pies. Between 15 and 20 percent mentioned using a prepared cherry mix. The proportion using frozen cherries for baking cherry pies ranged from 1 percent in Dallas to 18 percent in Kansas City. Use of the syrup-pack canned cherry, on the other hand, was rather constant in all three cities, about 10 percent reporting its use (table 34).

Each homemaker was also asked what she liked or disliked about each of the cherry products mentioned. Since the replies, for the most part, were similar for all the products and because 3 of the 4 products -- frozen cherries, canned cherries in sweet syrup, and prepared cherry mix -- were used by relatively few housewives, the discussion is presented only for canned red sour cherries. Specific data for each product are presented in tabular form in the appendix; however, the reader is urged to exercise caution in using this information (tables 35, 36, 37, and 38).

Among homemakers using the water-pack cherry, flavor was given as one of the more important appeals. Convenience of use also was mentioned by a relatively large proportion of users. Other reasons given were appearance of fruit and favorable cooking properties. On the negative side, relatively few complaints were voiced. Among the more frequently recorded complaints, however, was the problem of fading of the fruit color. Between 29 and 37 percent of those expressing dislikes mentioned some aspect dealing with the appearance of the cherries, such as "color is dull, faded, or too dark" (table 39).

<u>Awareness of can size 3</u>/.--Because of the marked shift of the cherry canning industry to the use of the No. 303 size can and away from the No. 2 size can, respondents were asked several questions about can size in order to get some idea as to consumer awareness of this change.

Specifically, each housewife or homemaker who had baked a cherry pie was asked what size can she had used for the most recent pie. According to the results of the survey, some 60 percent of the cherry pie bakers in both Dallas and Kansas City reported using the No. 2 can. The comparable proportion in Detroit was 30 percent. Between 5 and 12 percent indicated that

<sup>3/</sup> In addition to the consumer survey on cherry products described here, the Department of Agriculture conducted a merchandising survey at the retail level. A brief discussion of the experiment is presented in the appendix, page 19.

they had used the No. 303 can, whereas some 18 to 35 percent said they did not know can size. An additional 10 percent in both Dallas and Kansas City reported using a size  $2\frac{1}{2}$  can (although it is believed this size actually was not available). (Table 40.) A further attempt to pin down the respondents' knowledge of can size was made by asking the homemaker if she had a can of cherries on hand; if so, its size. Unfortunately, only a few (about 1 in 5) had a can of cherries in the house, so that no absolute comparison or check was possible (table 41).

The respondent was also asked if, in her opinion, one can of cherries made an adequate pie filling. In each city, a majority of those using canned cherries in baking a pie (between 53 and 87 percent) were of the opinion that one can of red sour cherries makes an adequate pie filling; between 12 and 33 percent were of the opinion that one can was inadequate (table 42). More than suiting the action to the word, 91 percent of the cherry pie bakers in Dallas, 62 percent in Detroit, and 73 percent in Kansas City had used only one can in baking their most recent cherry pie; between 5 and 20 percent had used more than one can (table 43).

The above information is based on the survey results. Certain factors are apparent, however, which tend to modify rather sharply the obvious conclusions that might be drawn from what has been said -- namely, that since housewives are using substantially more of the No. 2's than the No. 303's, they <u>prefer</u> the No. 2 to the No. 303; thus, it might be inferred that the product should be packed in the No. 2 size only.

Data showing the actual ratio of the No. 303 to No. 2 sales in each of these cities, unfortunately, are not available to either confirm or contradict the findings described. A reading of questionnaires and discussion with respondents and interviewers results in the opinion that many (if not most) of the homemakers were not familiar with any recent changes in can sizes. In fact, the feeling persists that the homemaker answered in terms of the general size of can she was used to finding on the store shelf and with which she has had most experience, rather than in terms of what is currently available. Thus the proportion that reported using the No. 2 can is probably somewhat overstated, whereas that using the No. 303 can is understated.

In addition, the use of the cherry products, although widespread, is still so infrequent on the part of any one homemaker that one might question whether the user, even if aware of and discontent with changes in can size (which is not the case with a majority of the users), is indeed concerned to the extent of reducing or increasing consumption, as the case may be.

The conclusion drawn from this household survey then, appears to be that the consumer, with her present knowledge of can size, cannot be expected to resolve the problem of size (that is, whether the industry should pack cherries in the No. 303 can, the No. 2 can, or both). In another study, using a controlled retail store experiment in the Pittsburgh market, it was found, however, that when the consumer was given equal choice,

#### General results:

(1) In baking cherry pies, homemakers relied on several sources for their receipes. About 1 in 4 used the recipe on the can. A similar proportion used cookbooks or recipes obtained from relatives or friends (table 44).

(2) The pie-pan size used by most homemakers in baking cherry pie was a 9-inch pan from which 6 servings were obtained (table 45).

(3) Some 80 percent of those interviewed usually baked cherry pies for their families; between 10 and 18 percent baked for guests (table 46).

(4) Some 7 out of 10 housewives in each city baked only one cherry pie at a time (table 47).

(5) When asked their opinions as to the cost of baking a cherry pie, around 90 percent of the homemakers in each city felt that a cherry pie was not expensive to make (table 48).

(6) Changes in the frequency of baking were reported in about one-third of the households. Between 20 and 30 percent of the home pie bakers said they were baking less than in previous years; about 10 to 15 percent were baking pies more often. Changes in family size appeared to be the dominant factor for both groups, followed by taste changes (tables 49, 50, and 51).

#### Use of Selected Cherry Products for Purposes Other Than Pies

<u>Canned red sour cherries (water pack).--Relatively few of the homemakers</u> interviewed in each city had used canned red sour cherries for some purpose other than as a pie filling. Altogether, only some 1<sup>4</sup> percent in Detroit and 19 percent in both Dallas and Kansas City had found an alternative use for the water-pack cherry (table 52).

The most frequent reason given for nonuse of the water-pack cherry other than in a pie was simply that there was no use for them or no call for them. This might be interpreted to mean that the homemaker did not or could not think of any alternative uses for this type of cherry product. Many respondents mentioned this fact directly by saying: "Don't know how to use them except in pies," "don't have a recipe calling for them," or "juct haven't thought of it -- never think of it except for pies." Such reasons for nonuse indicate that these respondents might be potential users of the water-pack cherry if they were aware of the full range of possibilities of the product. A dislike of cherries in general appeared to be responsible for the nonuse of canned cherries among 4 in 10 of the homemakers who did not use red sour cherries (table 53).

4/ See appendix, page 19.

Among those who used cherries for purposes other than pie baking, cobblers and fritters were mentioned most often as the different ways in which canned red sour cherries could be used. Between 37 and 59 percent of the homemakers who had experience with the product had used it for this purpose. Other uses given for the water-pack cherry were as a topping for a pudding or ice cream, in baking cakes, and for use in gelatine desserts and salads (table 54).

As for those homemakers who had used the product in pies, users of canned red sour cherries for other purposes were liberal in their use of such "flavor" words as tart, tangy, spicy, and good, in explaining why they liked the product. Colorful, pretty, and nice red color of the fruit were other important appeals from a promotional standpoint (table 55). Ease of preparation and variety were also important to the consumers.

Frozen cherries.--Because of the relatively short period during which frozen cherries have been available to the general consumer, questioning on the alternative uses of frozen cherries was begun by inquiring if the homemaker had heard of the product. The replies to this question bear directly, of course, on the number of women who had used frozen cherries in baking a pie, since a "No" answer at this point (which indicated that the homemakers were not aware of the existence of a frozen cherry product) would also explain their nonuse of the product in the pie baking section.

Awareness of the product varied markedly among the 3 cities. In Dallas, only 19 percent of the homemakers had heard of the product; in Detroit, the comparable figure was 51 percent; and in Kansas City, some 64 percent were aware of the product. Much of this difference between the cities might be due to differing distribution patterns for the product; that is, frozen cherries may have had wider distribution in Kansas City than in Detroit, a fact which was unknown at the time of the survey.

Awareness of the product and use of the product were two different things. Only some 4 percent in Kansas City, and even less in Dallas and Detroit, had used frozen cherries for some purpose other than pies (table 56). Both the relatively low level of awareness and the negligible level of use suggest, therefore, that much remains to be done in acquainting the consumer with frozen red sour cherries.

Many different reasons were obtained from homemakers who had heard of frozen cherries but had not used them. Some of the respondents had not used the product simply because they didn't like cherries for any purpose or they disliked the taste for some reason. From the point of view of expanding consumption of the product, however, such reasons as habit (in this case meaning inertia) and "just haven't -- no reason," which were mentioned by between 7 and 20 percent of the homemakers are perhaps more meaningful and useful in terms of possible action (table 57).

<sup>5/</sup> Dislikes of the product were mentioned by so few of the respondents as to make the results of questionable value.

<u>Canned red sour cherries in syrup</u>.--Awareness of canned red sour cherries in syrup also varied considerably among the three cities, again suggesting differential exposure to what is a relatively new product. Roughly speaking, out of every 10 homemakers only 2 in Dallas and approximately 4 in Detroit and Kansas City were aware of the product. Looking at the other side of the picture, a majority in all three cities, therefore, reported that they had never heard of the canned sour red cherries in syrup. As with frozen cherries, relatively few (5 percent or less) of the homemakers had used the product for some purpose other than as a pie filling, indicating that here, again, much consumer educational work can be done (table 56).

No one reason was predominant among those given for not using canned red sour cherries packed in syrup for any purpose other than making pies. Some of the reasons mentioned by homemakers included "don't know how to use them except in pie -- don't have a recipe calling for them" (between 4 and 17 percent), or, expressing the same thought in different terms, "just haven't thought of it, never think of it except for pies" (some 3 to 9 percent), and "just haven't" (from 4 to 10 percent). At the other extreme were such phrases as, "don't like cherries for any purpose" and "don't like the taste of cherries -- too sour, bitter, or acid" (table 58).

#### Purchases of Commercially Prepared Pies

Commercially prepared pies were purchased by about half of the homemakers in each of the three cities. Some 50 percent of the housewives in Dallas, 51 percent in Kansas City, and 55 percent in Detroit said that they had bought at least one pie within the past 12 months (table 5).

Table	5Proportion	of	homemakers	purchasing	pies,	by	type	purchased	and
			(	city					

Pie purchases, by type	Dallas	Detroit	Kansas City
	Percent	Percent	Percent
Total	<u>100</u>	<u>100</u>	<u>100</u>
Bought pies	50	55	51
Bought pies	100	100	100
Frozen pies only	10	6	15
Bakery pies only	69	78	75
Frozen and bakery pies	21	15	10

Of interest, incidentally, is the fact that in the three cities, relatively more homemakers (about 80 percent) baked their own pies in place of buying them, indicating that the art of home pie baking is still very much alive. Most of the housewives who had used a commercially prepared pie within the past year had purchased only bakery pies (around 7 in 10). Commercially prepared frozen pies had been used exclusively by approximately 1 in 10; and between 1 and 2 homemakers in each 10 had purchased both frozen and bakery pies (table 59).

<u>Reasons for buying pies.--</u>The saving in time was far and away the most important reason in the mind of the homemaker for using a commercially prepared pie rather than baking at home. Between 49 and 57 percent of those buying pies stated that they had no time to bake. In this same vein, around 10 percent of the housewives mentioned such reasons for buying rather than baking as "it's handier," "more convenient, easier, and saves work." Only a relatively few of the responses dealt with such things as flavor or taste (table 60).

Kinds of pies purchased.--Apple pie was the number 1 purchased pie in both Dallas and Detroit, followed by cherry pie. In Kansas City, apple and cherry pie shared the honor of having been bought by more housewives than any other pie. Other pies purchased by fairly large proportions of the homemakers in each city were peach, pineapple, and blueberry among the fruit pies, and coconut, chocolate and lemon among the cream pies (table 61).

A comparison of the housewives baking specific pies with those buying, reveals that the proportion baking cream pies at home far exceeds the proportion buying the same kind of pie (roughly 50 percent as against 10 percent). Conversely, with the exception of apple, cherry, and peach pie (which are the three most popular fruit pies) relatively more homemakers were buying prepared fruit pies than were baking them at home. Whether this indicates the relative ease of baking cream pies as opposed to certain of the fruit pies can only be guessed at; as is also the case in attempting to evaluate the impact of the so-called dry prepared mix or pudding on the home pie baking market.

As with the home-baked pie, apple was considered the favorite purchased pie by a relatively large number of housewives. About 24 percent in Kansas City, 32 percent in Dallas, and 38 percent in Detroit favored apple pie. Cherry pie was selected by proportions ranging from a low of 8 percent in Detroit to 28 percent in Kansas City. In each city, incidentally, the proportion of persons indicating cherry as the family favorite among purchased pies was substantially greater than the proportion selecting cherry as the most popular home-baked pie. Except for apple and cherry, few, if any, of the other kinds of purchased pies could muster any substantial support as the family favorite (table 22). To complete the picture on the most popular pie purchased, almost all of the homemakers indicated that the commercially prepared pie most popular with the family was indeed the one bought most often.

Commercially prepared pies were purchased less than once a month, on the average, by homemakers in each of the cities. In Dallas, for example, the average frequency of purchase of pies was 10 times per year, and in Kansas City it stood at 5 times per year. At the extremes, only some 10 percent of the homemakers used "store boughten" pies as often as once or more a week; between 37 and 47 percent reported buying pies less than once every other month (table 62). Cherry pie, incidentally, was purchased less than 6 times a year by more than 60 percent of those using a commercially prepared pie, and the proportion buying a cherry pie once a month or more was negligible. Here again, a comparison with the frequency of home pie baking served to illustrate the relative importance of home baking versus purchases of pies. As noted earlier, the average frequency of baking of home pie bakers was around  $2\frac{1}{2}$  to 3 times a month, and only about 1 home baker in 6 baked pies less than once a month.

#### APPENDIX

#### Results of a Merchandising Experiment for Red Sour Cherries

A matched-lot retail store merchandising experiment was carried out for canned red sour cherries in a sample of 12 stores in Pittsburgh, Pa., from February 21 through May 14, 1955. The purpose of this experiment was to measure degree of consumer response as reflected through sales between can sizes No. 2 and No. 303 at the retail store level when offered under identical conditions. In the experiment, consumers were offered the same brand and quality of cherries in the two different can sizes. Cherries sold in the larger can size (No. 2, 19 oz.) retailed at approximately the same price per ounce as an equivalent quantity sold in the smaller can (No. 303, 17 oz.) with the cherries priced at 2 cans for 55 cents (No. 2) and 2 cans for 49 cents (No. 303) throughout the experiment. Advertising and promotion of cherries during the course of the 12-week experiment were applied equally to both can sizes. Island displays were maintained in all 12 stores for a short time, and when the cherries were moved back on the shelf, two rows each of No. 2 and No. 303 cans were displayed side-by-side in the nonrotational store experiment.

Measured in pounds, 39 percent more cherries were sold in the No. 2 than in the No. 303 can during the experiment. The difference in terms of volume between the two can sizes was statistically significant at the 1 percent probability level. Although No. 2 cans represented less than half of the total red sour cherry pack in consumer sizes in 1954, consumers, when confronted with an unbiased choice in the Pittsburgh market, purchased 5 cans of No. 2's to each 4 cans of No. 303's. This would seem to indicate that the No. 2 can has a definite place in merchandising red sour cherries.

A more detailed discussion of this study may be found in a marketing research report of the U. S. Department of Agriculture entitled "Merchandising of Selected Food Items in Grocery Stores: Canned Red Sour Cherries, Carrots, and Bananas" -- MRR No. 111. Copies of this report may be obtained by writing to the U. S. Department of Agriculture, Washington, D. C.

#### Sample Design

A sample of 400 dwelling units was selected from the 1954 city directory for Kansas City, Mo., which also included North Kansas City, Mo. First, streets were selected with probabilities proportional to number of households, then a cluster of 4 noncontiguous dwelling units was selected at random from each sample street.

The sample of 488 dwelling units in Dallas, Tex., including the cities of University Park and Highland Park, was selected from the 1954 Dallas city directory using the same sample design as for Kansas City.

The sample of 524 dwelling units in Detroit, Mich., and the suburbs of Highland Park and Hamtramck was selected by using 2 sampling sources. Since only 2 of the 3 volumes for the 1954 Detroit city directory were published at the time of the survey, it was necessary to use census block statistics and Sanborn maps to select the sample from the unpublished portion of the city directory. A proportional sample was selected from each sample source. The sample design from the city directory was identical with the Kansas City and Dallas designs. The remaining portion of the sample was selected in two stages by first selecting blocks proportional to number of dwellings and then selecting 4 dwelling units at random from each selected block.

Since the proportion of pie bakers in each city was somewhat larger than anticipated, the number of interviews actually taken in each of the cities was only 287 in Kansas City; 361 in Dallas; and 405 in Detroit.

#### Tables

Table 6.--Proportion of all homemakers who baked or bought pies in the past year, by pie baking activity and city

Pie baking activity	Dallas	Detroit	Kansas City
	Percent	Percent	Percent
Baked at home only	13	12	11
Baked at home; baked cherry pie	31	27	33
Baked at home; baked cherry pie; bought pies	_ 25	24	32
Baked at home; bought pies	16	19	8
Bought only	9	12	11
Did not bake or buy	6	6	5
Total	100	100	100
Number of homemakers -	361	405	287

					- 21	-		1	1
ty	Large (5 and over)	Percent 10	94	6т	13	8	4	100	53
Kansas City	Medium (3-4)	Percent 10	35	43	7	7	Ч	100	לננ
	Small (1-2)	Percent 13	58	ß	Q	ΤT	Ø	100	120
	Large (5 and over)	<u>Percent</u> 16	36	S	22	τ <b>†</b>	ດ	100	100
Detroit	Medium (3-4)	Percent 8	26	30	20	ΟT	Q	001	156
	Small (1-2)	<u>Percent</u> 13	23	19	16	19	01.	100	149
	Large (5 and over)	<u>Percent</u> 10	38	27	ส	Q	Q	100	60
Dallas	Medium (3-4)	Percent 11	32	31	16	7	ĸ	100	157
	Small (1-2)	<u>Percent</u> 15	27	17	15	15	TT	100	ተተፒ
	Pie baking activity	Baked at home only	Baked at home; baked cherry pie	Baked at home; baked cherry pie; bought pies	Baked at home; bought pies	Bought only	Did not bake or buy	Total	Number of home- makers

Table 7.--Home pie baking activity during the past year by family size and by city

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Pie baking		Dallas =			Detroit	۲Ļ		Kansas City	y ±/
activity	Low	Middle	High	Low	Middle	High	Low	Middle	High
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Baked at home only	18	9	1	11	13	IO	16	9	8
Baked at home; baked cherry pie	19	041	36	52	25	33	30	38	50
Baked at home; baked cherry pie; bought pies	53	8	26	18	24	27	27	35	τ <del>η</del>
Baked at home; bought pies	23	15	TO	52	24	77	6	7	2
Bought only	Т	9	JO	17	9	σ	F	12	12
Did not bake or buy	9	4	2	.01	ц	7	7	CU	ω
Total	100	100	100	100	100	100	100	100	100
Number of home- makers	125	311	113	6	140	1µ7	103	91	99
<pre>1/ Income was not ascertained for in Kansas City.</pre>	rtained f	1	respondents in Dallas,	n Dallas,	82	respondents in Detroit,	Detroit, &	and 27 res	27 respondents

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Pie baking		Dallas 1			Detroit 1		Kans	Kansas City <mark>1</mark> /	- /ī
activity	None or grammar school	High school	College	None or grammar school	High school	College	None or grammar school	High school	College
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Baked at home only	23	JO	9	я	12	15	18	ΟŢ	9
Baked at home; baked cherry pie	18	34	38	31	25	26	35	31	33
Baked at home; baked cherry pie; bought pies	55	25	56	17	59	18	ม	37	- 23 22
Baked at home; bought pies	23	16	ננ	16	51	17	JO	9	- 6
Bought only	7	JO	TT	17	ω	13	13	11	ω
Did not bake or buy	7	Ś	Ø	ω	5	H	m	2	9
Total	100	100	100	100	100	100	100	100	100
Number of home- makers	86	193	81	811	236	46	71	160	Ţ
<pre>1/ Education was not ascertained in Kansas City.</pre>	scertained	for l	respondent in Dallas,	in Dallas,	5 respondents	dents in D	in Detroit, and		5 respondents

Table 9 .-- Home pie baking activity during the past year, by educational attainment of homemakers and by city

	On On One	+ + + > > 	nend out Sta	mone pre same accented anting and base deal of age and of all	ise and ny	GTCA
Die haking	Dallas	1.S	Det	Detroit	Kansa	Kansas City
activity	Under 35 years of age	35 years of age and over	Under 35 years of age	35 years of age and over	Under 35 years of age	35 years of age and over
Baked at home only	Percent 12	Percent 13	<u>Percent</u> 15	<u>Percent</u> 11	Percent 10	<u>Percent</u> 12
Baked at home; baked cherry pie	25	34	22	58	34	33
Baked at home; baked cherry pie; bought pies	31	52	24	24	32	32
Baked at home; bought pies	19	15	27	70	σ	7
Bought only	8	JO	6	13	8	13
Did not bake or buy	ц	9	m	ω	7	e
Total	100	100	100	100	100	100
Number of home- makers	<b>μ</b> ΓΓ	247	811	287	109	178

Table 10.--Home pie baking activity during the past year, by age and by city

			1			
Reasons	Dall	as	Detr	roit	Kansas	City
	Perce	ent 1/	Perce	ent 1/	Perce	nt 1/
Texture of crust Homemade crust is more tender, flaky Homemade crusts are better, bakery	49	·57	18	29	24	34
crusts are poor Flavor Homemade pies have richer, fruitier taste-	8 24	52	11  7	45	11  10	47
Homemade pies taste better than bakery pies	15		29		24	
taste stale Bakery pies are bland, tasteless, all taste the same Bakery pies not sweet enough Bakery pies are too sweet	8 6 2 2		2 4 2 2		2 8 4 2	
Cooking properties	23	50		25	12	39
bakery pies Homemade pies can be seasoned to taste Homemade pies are juicier; bakery pies too dry	19 12 4		8 13 1		12 17 2	
Use fresh fruit, real eggs, butter in homemade pies Cost and economycheaper to bake than buy Convenience	1	16 3	2	36 4	2	29 9
Easier to bake, don't get to store often - Quicker to bake than go to store Other	2 1	32	2 2 	37	7 2 	49
Homemade pies are fresh; bakery pies may be 3 or 4 days old Know what is in homemade pies, know they	-9		8		6	
are pure Like to cook, bake Don't like bought pies Can bake kind of pie I want, bakery	8 4 3		8 9 12		17 13 10	
selection limited Crust of bakery pie smells bad Homemade pies easier to digest Can make size pie I want; bakery	3 2 1		1  		2  1	
selection limited Miscellaneous Not ascertained or don't know	2/ 3	2	3	5	3	l
Number of homemakers	30	06	33	32	24	·2

Table 11.--Reasons for baking pies at home, by city

Percentages total more than 100 because some homemakers gave more than 1 reason. Less than 1 percent. 1/2/

Reasons	Dallas	Detroit	Kansas City
	Percent 1/	Percent 1/	Percent 1/
Family too small, too much waste	25	22	24
Eat most meals out	25	4	16
Don't have time to bake	22	21	18
Health-digestion (on diet, diabetic cannot eat crust)	15	14	16
Reducing, don't eat sweets	13	5	4
Can't make good pies	9	12	24
Too ill or old to bake	9	4	2
Receive pies as gifts	9	l	9
Don't like pies (general)	7	26	20
Cheaper to buy pies	5	4	4
Don't have adequate cooking facilities	2	7	7
Too much work	2	3	9
Not ascertained and don't know	2	7	
Number of homemakers	55	73	45

Table 12.--Reasons homemakers gave for not baking pies at home, by city

l/ Percentages add to more than 100 because some respondents gave more than l reason for not baking pies at home.

Kind of pie	Dallas	Detroit	Kansas City	
Fruit pies -	Percent 1/	Percent 1/	Percent 1/	
Apple Cherry Peach Apricot Blueberry Raisin Pineapple Rhubarb Boysenberry Strawberry Blackberry Blackberry	83 66 36 17 7 11 18 4 1 6 1 2	88 57 32 3 26 7 14 10  6 7 4	84 75 37 5 12 18 5 10 1 7 2 5	
Cream pies - Coconut cream Chocolate cream Banana cream Lemon cream Butterscotch cream Lemon meringue Pineapple cream Vanilla cream Pineapple meringue	$ \begin{array}{c}     44 \\     57 \\     27 \\     57 \\     13 \\     13 \\     13 \\     7 \\     \underline{2} \\     3 \end{array} $	29 39 30 58 11 10 3 2	34 47 34 54 21 9 7 2 	
Other pies - Pumpkin Mince Custard Pecan Sweet potato Chiffon pies Chiffon pies Cheese pie Miscellaneous fruit pies Miscellaneous other pies	49 38 20 36 11 3 2/ 1 1 2	64 25 24 5 11 3 3 3 2 1 2	71 30 24 13 5 1 2/	
Number of homemakers	306	332	242	
1/ Percentages total to more th	han 100 becau	se most homema	akers baked	

1/ Percentages total to more than 100 because most homemakers baked more than 1 kind of pie.

2/ Less than 1 percent.

Number of different pies baked	Dallas	Detroit	Kansas City
	Percent	Percent	Percent
l pie	4	5	4
2	5	10	6
3	9	11	8
4	14	10	12
5	13	13	17
6	12	16	13
7	12	8	8
8	9	8	9
9	8	8	8
10 or more pies	14	11	15
Total	100	100	100
Number of home- makers	306	332	242

Table 14.--Number of different kinds of pies baked during the past year by homemakers, by city

in Dallas
of pie,
by kind of pie, in 1
r of baking pies at home
baking
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Table

							-y =					
	Pumpkin pie	Percent	I I	Ч	8	ω	Ś	JO	81	ł	100	152
	Lemon pie	Percent	Ч	ε	Ч	10	50	8	ተተ	Ч	100	176
	Choco- late pie	Percent	Q	5	e	TT	27	15	36	Ч	100	176
Kind of pie	Coco- nut pie	Percent	8	m	<b>г</b>	10	23	16	μŢ	8	100	135
Kind	Peach pie	Percent	1	Q	1	9	22	52	84	1	100	211
	Cherry pie	Percent	Ч	5	Ч	9	8	17	50	8	100	202
	Apple pie	Percent	Ч	ŝ	ŝ	TO	25	23	35	8	100	252
	All pies	Percent	24	19	ω	15	19	ŵ	7	1 1	100	306
	Frequency of baking		5 or more times a month	4 - 5 times a month	3 - 4 times a month	2 - 3 times a month	1 - 2 times a month	6 - 12 times a year	Less than 6 times a year	Not ascertained and don't know	Total	Number of home- makers

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Table 16.--Frequency of baking pies at home, by kind of pie, in Detroit

				Kind	Kind of pie			
Frequency of baking	All pies	Apple pie	Cherry pie	Peach pie	Coco- nut pie	Choco- late pie	Lemon pie	Pumpkin pie
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
5 or more times a month	15	Q	1	Ч	1	1	Ъ	ł
4 - 5 times a month	22	8	m	5	m	m	5	CV
3 - 4 times a month	t <sup>1</sup>	M	e	;	J	S	8	J
2 - 3 times a month	50	18	Ŀ	7	10	8	Ø	ε
l - 2 times a month	19	รา	12	12	ηt	15	5	47
6 - 12 times a year	10	19	25	18	74	74	23	22
Less than 6 times a year	ТО	28	50	54	56	53	42	65
Not ascertained and don't know	ł	г	ଷ	m	Q	5	/ <del>T</del>	ω
Total	100	100	100	100	100	100	100	100
Number of home- makers	332	291	205	106	95	126	196	112

1/ Less than 1 percent.

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Table 17 .-- Frequency of baking pies at home, by kind of pie, in Kansas City

	kin e	ent										
	Pumpkin pie	Percent	Ч	Ч	Ч	4	TO	ส	61	-1	100	172
	Lemon pie	Percent	8	m	Q	10	ΤŢ	ΤŢ	50	Ч	100	131
	Choco- late pie	Percent	ł ł	4	m	ω	19	ส	45	ł	100	911
f pie	Coco- nut pie	Percent	Ч	N	4	2	1.5	24	Lη	8	100	83
Kind of	Peach pie	Percent	8	ŝ	14	ŝ	14	16	58	2	100	38
	Cherry pie	Percent	-	4	1	14	19	τ4	94	0	100	188
	Apple pie	Percent	г	9	N	16	8	Lτ	37	Ч	100	204
	All pies	Percent	15	22	4	เร	Τ	ω	13	8	100	542
	Frequency of baking		5 or more times a month	4 - 5 times a month	3 - 4 times a month	2 - 3 times a month	1 - 2 times a month	6 - 12 times a year	Less than 6 times a year	Not ascertained and don't know	Total	Number of home- makers

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Table 18.--Frequency of baking pies at home by family size, and by city

lity	um Large ) (5 and over)	ent Percent	50	26	9	+	1	2	11 2	0 100	5 lt7	7 3.3
Kansas City	Medium (3-4)	Percent	15	25	ش 	54	ଯ	2		100	105	2.7
μ.	Small (1-2)	Percent	TI	18	2	19	13	12	52	100	8	2.2
	Large (5 and over)	Percent	17	54	74	22	18	9	σ	100	64	2.8
Detroit	Medium (3-4)	Percent	14	56	†	50	8	ω	Ø	100	132	2.7
	Small (1-2)	Percent	14	15	5	Lτ	8	72	14	100	106	2.1
	Large (5 and over)	Percent	31	52	10	15	17	8	Ľ	100	58	T•4
Dallas	Medium (3-4)	Percent	30	18	7	רד	50	7	L	100	142	3.7
	Small (1-2)	Percent	12	18	7	เป	50	12	JO	100	301	2.4
	Frequency of baking		8	a month	times a month	times a month	month	year	ರು	8	Number of home- makers	Median frequency -

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Frequency
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Table

		Dallas <u>1</u> /			Detroit ]	<u>1</u> /	K	Kansas City <mark>1</mark> /	/ 7/
Frequency of baking	Low	Middle	High	Low	Middle	High	Low	Middle	High
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
5 or more times a month	18	. 33	ស	12	12	19	ΤŢ	14	14
4 - 5 times a month	23	16	18	ส	53	ส	20	26	23
3 - 4 times a month	Ŋ	6	6	53	7†	5	5	5	S
2 - 3 times a month	14	18	14	с,	23	15	14	22	31
1 - 2 times a month	22	74	ದ	8	19	33	15	19	16
6 - 12 times a year	9	9	LI	14	6	9	6	6	55 -
Less than 6 times a year	12	4	Ó	7	10	11	ଟ	ſſ	7
Total	100	100	100	100	100	100	100	100	100
Number of home- makers	103	101	94	66	120	123	85	78	56
Median frequency	2.7	3.9	2.9	3.3	2•5	2.7	2.4	2.8	2.6
1/ Income was not ascertained in Kansas City.	rtained for	ω	respondents in	Dallas,	23 respondents		in Detroit, a	and 23 res	respondents

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Number baked	Dallas	Detroit	Kansas City
1	Percent 56	Percent 48	Percent 53
2	36	36	36
3	6	11	9
4	l	4	1
5 and over	l	l	1
Not ascertained			<u>1</u> /
Total	100	100	100
Number of home- makers	306	332	242

Table 20.--Number of pies baked at any one time, by city

1/ Less than 1 percent.

Table 21.--Number of pies baked at one time, by family size, and by city

1	1				-	35	-	1 1	1 1
Ŋ	Large (5 and over)	Percent 15	Ltt	32	4	CJ	8	100	μŢ
Kansas City	Medium (3-4)	Percent 49	Ļμ	4	8	8	8	100	105
×	Sma.ll (1-2)	Percent 78	18	Q	8	Ч	Ч	100	6
	Large (5 and over)	<u>Percent</u> 28	<b>4</b> 7	1.5	7	ŝ	8	100	94
Detroit	Medium (3-4)	Percent 41	42	14	ณ	Ч	8	100	132
	Sma.ll (1-2)	Percent 74	ส	N	m	1	1	100	106
	Large (5 and over)	Percent 26	55	12	74	m	1	100	58
Dallas	Medium (3-4)	Percent 61	32	9	Ч	1	8	100	142
	Small (1-2)	Percent 68	30	0	ł	1	8	100	106
	Number		2	3	4	5 and over	Not ascertained	Total	Number of home- makers

Table 22.--Most popular pies of home bakers and purchasers, by city

	Dal	las	Det	roit	Kansa	s City
Pies	Bakers	Pur- chasers	Bakers	Pur- chasers	Bakers	Pur- chasers
Apple Chocolate Lemon Cherry Coconut Peach	Per 28 17 11 9 5 2	cent 32 4 1 16 2 2	Per 45 5 8 4 2 3	<u>cent</u> 38 5 5 8 3 1	Per 25 7 9 19 4 3	24 24 1 28 1 8
Number of home- makers	306	182	332	223	242	146

Table 23.--Proportion of homemakers who used each type of filling for baking pies at home, by city

Type of filling used	Dallas	Detroit	Kansas City
For fruit pies	Percent	Percent	Percent
Fresh or dried fruit Frozen fruit Prepared fruit filling - Canned fruit	60 7 10 84	86 9 12 67	82 14 11 74
For cream and other pies			
Prepared dry mix or pudding Other ingredientsown	23	50	48
preparation	94	85	91
Number of cases	306	332	242

			1			
Reasons	Dali	las	Deti	roit	Kansas	City
Flavor	Perce	ent 1/		ent 1/	Perce	
Good fruit flavor, not artificial, true flavor	49 24 7 2	77	26 33 9 3 1	69	37 30 8 9 2	80
Healthbetter for you, more vitamins		25		8		10
Cooking properties Firmer, retains shape, doesn't cook up Juicier Can season to taste Fresh, more tender than others Always turns out right	8 5 5 	16	13 8 7 1 1	30	10 9 3 1	20
Price and economy Cheaper, just as cheap as other types Fresh goes further No waste, not as much waste	13 2 1	16	14 3 	17	10 2 	11
Availability Not available in any other form Available year round Grow, can own, receive as gifts	10 4 1	15	1 1 2	3	 1 4	6
Convenience Easy to prepare, no trouble Easy to store, convenient to have on hand Quick to prepare, saves time	4 3 2	9	  1	l	 1 1	3
Appearance Nice color, good color, better color Good appearance	2 1	2	3 1	4	3 	3
Other	3 2 2 1 2	10	3 5 3 1 3	15	5 2  3 6	16
Not ascertained or don't know		1		4		2
Number of homemakers		182	28	39	19	07

Reasons	Dal	las	Detr	oit	Kansas	Gity
	Perc	ent <u>1</u> /	Perce	nt 1/	Perce	ent 1/
Convenience Quick to prepare, saves time Ready to use (pitted, peeled, etc.) Easy to store, no danger of spoilage Easy to prepare, simple	33 23 22 21	80	21 26 8 18	64	31 20 20 16	72
a full pie	2		1		l	
Availability Available year round; fresh not avail- able Not available in any other form	40 4	դդ	41 2/	42	 44 	44
Price and economy Cheaper, just as cheap as others No waste, not as much waste Cheaper, don't have to add as much sugar-	24 10 <u>2</u> /	34	18 1 1	20	22 1 1	24
Flavor Good, better, superior flavor Good fruit flavor, not artificial Tart, tangy flavor Sweet taste, sweeter than other Good as homemade, tastes like homemade Not bland, flat, tasteless	15 9 5 1 1	30	12 3 3 2/ 1	22	3 4 1 1 	8.
Cooking properties	3 3 2 2	9	4 1 4 1	10	2 1 1 1	5
Appearance	4 2/ 2/	5	6 	7	1 1 	l
Other Healthbetter for you, more vitamins Don't know how to use anything else Quality doesn't vary from can to can; dependable Better than own preparation Wanted to try it, to try recipe	9 3 2 1 2/ 2/ 2/ 2/ 2/ 2/ 2/	17	2 2 2 1 1 1 1	6	1 1 1 1 1 1 1 1	6
Not ascertained or don't know				3		T
Number of homemakers	2	55	22	25	ľ	78

<u>l</u>/ Percentages (left column) total to more than their subtotals (right column) and these total to more than 100 because some homemakers gave more than 1 reason.

2/ Less than 1 percent.

Table 26 .-- Reasons given for using frozen fruit in home pie baking, by city

Reasons	Dal	Llas	De	troit	Kansa	s City
	Perce	ent 1/	Perc	ent 1/	Perc	ent 1/
Convenience		55		28		52
Ready to use, don't have to add anything Quick to prepare, saves time Easy to store, convenient to have	30 20		16 6		ध्य 9	
on hand Easy to prepare, no trouble Always same amount in can,	10 5		3 6		15 9	
Always same amount in can, enough for a full pie Available year round Flavor		50 25		16 44	3	18 58
Flavor not artificial, tastes more like fresh fruit Good, better, superior flavor Tart, tangy flavor Sweet taste, sweeter than other Not flat, bland, tasteless	20 5 		28 3 6 3 3		45 3  9 3	
Good as homemade, tastes like homemade Appearance-nice color, better color- Price and economy No waste, not as much waste Cheaper, just as cheap as other			<sup>7</sup> 3 6	13 9		6 18
types Cheaper, don't have to add (as much) sugar			3		12 3	
Cooking properties Firmer, retains shape, doesn't cook up				9	3	3
Can season to taste Other Don't know how to use anything		15	3	12		6
else	10 5 		 6 6	3	 3 	
Number of homemakers	2	0	3	2	3	3

Reasons	Da	llas	Deta	roit	Kansas	Kansas City	
	Perc	ent 1/	Perce	ent 1/	Perce	ent 1	
Convenience		84		64		, 78	
Quick to prepare, saves time	55		28		44		
Ready to use, don't have to add							
anything	23		26		30		
Easy to prepare, no trouble	16		15		11		
Easy to store, no danger of							
spoilage	3				7	_	
Flavor		39		18		7	
Good, better, superior flavor			10	1			
Good fruit flavor, not artificial	6		5	/	4		
Tart, tangy flavor	6			1			
Good as homemade, tastes like				1			
homemade	3		3	1			
Sweet taste, sweeter than other -	3			1	4		
Appearancenice color, better				1			
color	!	16					
Price and economy		10		13		7	
Cheaper, just as cheap as other	1			1			
types	10		3	1			
No waste, not as much waste			3 8 3				
Cheaper, don't have to add sugar-			3		7	1	
Cooking properties		10		5		11	
Foolproof, always comes out							
right	10		5		7		
Can season to taste, add spices,							
etc		. 1			4		
Available year round		6		8		15	
Other		16		15		11	
Better than own preparation			3		4		
Wanted to try it			10		4		
Don't know how to make own pre-							
paration	1 1				4		
Miscellaneous			3				
Not ascertained or don't know		3		10		4	
Number of homemakers	33	1	39	,	27	7	

Table	28Reasons	given	for	using	а	prepared	dry	mix	or	pudding	in	home	pie	bak-
					:	ing, by c	ity							

Reasons	Da.	llas	Detr	oit	Kansa	s City
	Perc	ent 1/	Perce	nt 1/	Perc	ent 1/
Convenience Quick to prepare, saves time	62	92	60	87	63	87
Easy to prepare, no trouble Ready to use, don't have to add	17		20 13		15 16	
anything Easy to store, convenient to have on hand	17 3		2		6	
Always same amount in package; enough for a full pie	l					
Flavor	 14	27		17		14
Good, better, superior flavor Good as homemade; tastes like			9		_	
homemade True flavor; not artificial	11 1		7 1		8	
Tart, tangy flavor	1	25	l	20		14
Cheaper, just as cheap as other		- /	10	20		
types Cheaper, don't have to add sugar -	21 3		15 5		9 5	
No waste, not as much waste Cooking properties	1	24		23		17
Foolproof, always turns out right,	21		23	Ū	16	
always smooth Can season to taste (add sugar,			25			
spices, etc.) Not available in any other form	3	l			2	
Appearancenice color, good color - Other		 14		1 9		 16
Better than own preparation	10		3		13	
Don't know how to make own pre- paration	l		3 1		2	
Wanted to try it Healthbetter for you, more			1		2	
Vitamins Habit, always use them			1 1			
Miscellaneous	3		1			
Not ascertained or don't know		3		4		2
Number of homemakers		71	10	68	1	16

0: tu					Percent	distribu	tion 1/			
City			Male		-			Fem	ale	
and kind of pie	Total	Under 13	13-19	20-34	35 and over	Total	Under 13	13-19	20-34	35 and over
Dallas:										
Apple Chocolate cream Cherry Lemon cream Coconut cream Pumpkin Peach Banana Cream	21 20 10 6 3 2 1	12 38 11 7 6 2 1 1	18 25 17 12 2 2 	21 18 4 8 10 4 2 3	26 10 9 13 5 4 2 1	16 19 13 13 6 2 2 2	5 37 18 5 3 3 1 3	9 33 9 21 5  3 2	17 19 11 9 2 2 2 2	22 9 13 16 5 3 2 1
Number of persons	506	128	51	103	224	547	106	43	130	268
Detroit: Apple Chocolate cream Cherry Lemon cream Coconut cream Pumpkin Peach Banana cream	33 6 98 2 4 1 3	23 10 7 8 1 8 1 2	27 7 10 3 7 2 5	31 7 12 5 1 1 1 4	39 3 8 3 3 1 3	29 6 8 15 4 5 2 3	23 9 7 12 4 9 4 2	19 9 16 19 1 6 1 2	30 5 6 11 4 5 3 4	32 4 7 17 3 2 3 3
Number of persons	630	148	60	138	284	693	143	70	158	322
Kansas City: Apple Chocolate cream Cherry Lemon cream Coconut cream Pumpkin Peach Banana cream	22 8 21 6 4 7 1 5	14 16 18 3 9  8	16 3 28  3 11 3 5	20 6 20 8 10 5 	28 6 21 4 3 6 2 2	15 9 23 9 4 5 3 3	4 9 29 7 1 6 4 5	21 9 12 5 7 7 5	11 15 22 9 6 8 1 3	22 4 23 10 4 2 2 1
Number of persons	387	86	36	84	181	435	83	43	120	189

1/ As a proportion of all persons in the age group.

T

City and		Percent distribution								
favorite dessert			Male					Female		
	Total	Under 13	13-19	20 <b>-</b> 34	35 and over	Total	Under 13	1 <u>3</u> -19	20-34	35 and over
Dallas:										
Pie Ice cream, parfaits Cake, cookies Pudding, jello,	54 26 14	44 42 11	47 31 20	55 17 20	60 19 13	53 23 13	48 34 8	51 21 19	61 18 15	50 22 13
custard Fruit (fresh,	3	l		4	6	7	8	2	4	8
Miscellaneous No favorite dessert	2  1	1  1	2  	3  1	1  1	⊥⁄_1	2	7  	2  	<u>⊥</u> /3
Total	100	100	100	100	100	100	100	100	100	100
Number of persons	506	128	51	103	224	547	106	43	130	268
Detroit:										
Pie Ice cream, parfaits Cake, cookies	36 18 15	22 31 24	34 18 17	41 12 14	41 14 11	31 18 19	18 30 28	30 19 20	33 11 20	35 15 15
Pudding, jello, custard Fruit (fresh,	11	13	3	12	11	13	13	11	17	12
Miscellaneous No favorite dessert	8 1/ 12	3  7	10  18	9  12	9 1 13	10 1/ 9	7  4	7  13	11  8	11 1 11
Total	100	100	100	100	100	100	100	100	100	100
Number of persons	630	148	<u></u> б0	138	284	693	143	70	158	322
Kansas City:										
Pie Ice cream, parfaits Cake, cookies	35 20 21	13 35 24	31 14 36	40 15 24	44 17 15	33 20 20	22 29 22	39 7 19	36 17 28	34 21 15
Pudding, jello, custard	6	8	5	4	5	11	14	12	8	10
Fruit (fresh, cooked, canned) Miscellaneous No favorite	6 1_/	7. 		4 	7 1	6 1	2 1	5 2	λ <sub>1</sub> 	8 2
dessert	12	13	14	13	11	9	10	16	7	10
Total	100	100	100	100	100	100	100	100	100	100
Number of persons 1/ Less than 1 perc	387	86	36	84	181	435	83	43	120	189

Less than 1 percent.

Table 31 .-- Reasons homemakers gave for baking cherry pies, by city

Reasons	Dallas	Detroit	Kansas City
	Percent 1/	Percent 1/	Percent 1/
Like tart, tangy taste	65	30	45
Family asks for it	27	39	48
Looks good to eat, like red color	23	9	11
Easy, quick to prepare	21	5	9
Variety, something different	18	26	13
Like cherry flavor, like cherries	15	23	22
Favorite pie	15	10	21
Inexpensive, economical to serve	13	l	l
Good for diet, good for health, has vitamins	9	l	2
Like sweet-tart taste	4	8	7
Have cherry tree, can own cherries	l	8	4
Like juicy pies	l	2	3
Miscellaneous	l	l	2
Not ascertained and don't know	<u>2</u> /	3	l
Number of cherry pie bakers	202	205	188

1/ Percentages add to more than 100 because some homemakers gave more than 1 reason.

2/ Less than 1 percent.

Table 32 .-- Reasons for never baking a red sour cherry pie, by city

Reasons	Dallas	Detroit	Kansas City
	Percent	Percent	Percent
Don't like cherry pie, don't like taste of cherries	40	36	24
Don't like taste of cherries, too sour, bitter, acid	38	42	43
Don't know how; not a good cook	7	5	14
Healthdigestion (can't eat tart fruit)	5	4	5
Use only fresh fruit, fresh cherries not available	3		
Too expensive; don't have much money	3		~ =
Don't have time		3	
Miscellaneous	2	4	9
Not ascertained or don't know	2	6	5
Total	100	100	100
Number of home- makers	58	77	21

Reasons	Dallas	Detroit	Kansas City
	Percent	Percent	Percent
Depl+ like charge nic	26		26
Don't like cherry pie	20 24	17 26	
Cherries taste too sour, bitter -	24 11	20	17
Can't make good cherry pie Too expensive		2	6
Cream pies easier to make	5 5	2	5
-	2		
Healthdigestion (can't eat tart fruit	4	12	
Use only fresh fruit	4	13	2
Don't have time	4 1	7 4	6
Canned cherries are dull in	4	4	0
color	4		
Prefer cobbler	4		
	4		
Family smaller, don't bake much	2	8	2
Got tired of it	2	2	36
	2	2	0
Don't like sweets, don't eat desserts	2		6
	٢		0
Dieting, trying to keep weight down		4	
Miscellaneous			
Not ascertained and don't know	3	5 4	3
Not ascertained and don't know	2	4	9
Total	100	100	100
Number of homemakers	54	53	34

Table 33.--Reasons given by former cherry pie bakers for not baking cherry pie any more, by city

Table 34.--Cherry pie bakers who used each type of filling in baking cherry pie, by city

Type of filling used	Dallas	Detroit	Kansas City
Prepared cherry mix Canned sour red cherries Frozen red cherries Canned sour red cherries in syrup	Percent 20 95 1 10	Percent           15           81           8           12	Percent           14           87           18           11
Number of cherry pie bakers	202	205	188

					· · · · · · · · · · · · · · · · · · ·	
Reasons Da		.as	Detr	roit	Kansas	City
Flavor Tart, tangy flavor Good, better, superior flavor Good cherry flavor, not artificial Sweet taste, sweeter than others	Perce 42 13 8 1	ent 1/ 62	Perce 14 19 4	<u>ent</u> 1/ 36	<u>Perce</u> 15 14 13 1	unt 1/ 41
Convenience Easy to prepare, no trouble Quick to prepare, saves time Easy to store, no danger of spoilage Ready to use, already pitted	14 12 7 5	35	15 7 2 31	52	15 4 6 13	35
Appearance Nice color, good red color, bright color - Pretty, nice appearance, looks good Cherries are uniform size Not marked, no black specks, spots	25 4 2 	29	8 4 2 	11	7 1 4 2	12
Price economy Cheaper, just as cheap as other types Get more cherries, enough for pie No waste, not as much waste	13 2 1	15	5. 2 1	8	7 4 1	11
Cooking properties	8 3 2	12	13 1 2 1	17	 24 4 5 1	32
Available year round, fresh not available		5		7		10
Other Health, better for you, more vitamins Just like them, family likes them Use for variety Habit, always use them Mother used them, learned to cook from mother	5 2 1 1 1 1 1	13	 4  1 1 1  1	8	1 5  1  1 1	9
Nothing liked		4		3		l
Not ascertained or don't know		1		4		l
Number of homemakers	19	)1	156		16	54

1/ Percentages (left column) total to more than their subtotals (right column) and these total to more than 100 because some homemakers gave more than 1 reason.

.

Reasons	Da.	llas	Detroit		Kansas	s City
Flavor	Perc	<u>ent 1</u> /	Perce	ent <u>1</u> / 41	Perce	ent 1/ 76
True flavor, tastes like fresh cherries	100	33 	29 6   29	 35	56 12 6 3	6 24
Cherries are uniform size Pretty, nice appearance, looks good Convenience Ready to use, already pitted Already sweetened, don't have to			12 6  24	29	3 3 3	32
add sugar Easy to store, convenient to have on hand Easy to prepare, no trouble Quick to prepare, saves time Price and economy Cheaper, just as cheap as other	  		12 6 	12	15 3 15 6	9
types Get more cherries for a pie Cooking propertiesfirmer, retains shape, doesn't cook up Other Health, better for you, more		 33	6	6 6	6 6	9 3
Vitamins Just like them, family likes them	33 		6	12	 3	3
Number of homemakers		3		7	3	4

Table 37 .-- Reasons given for liking a prepared cherry pie mix, by city

Reasons	Dal	las	Detroit		Kansa	s City
Convenience	Perc	<u>ent</u> <u>1</u> /	Perce	<u>nt 1</u> /	Perc	ent <u>1</u> / 85
Ready to use, don't have to add anything Quick to prepare, saves time Easy to prepare, no trouble Already sweetened, don't have to add sugar Flavor	34 32 24 3 10	27	48 26 16 10 13	26	41 26 22 4 	11
Tart, tangy flavor Tastes like fresh cherries, not artificial	7 2 17 2 15 2 7	19 17 7	3  10 	3 6 3		7  4
Other Better than own preparation Doesn't vary from can to can, de- pendable Don't know how to make own pre- paration Use for variety Miscellaneous	7 2 	9	  10 3 3	16		
Nothing liked		10 		10 3		11 4
Number of homemakers	4	1.	31	-	27	

Table 38.--Reasons given for liking canned sour red cherries in syrup, by city

Reasons	Da	llas	Detroit		Kansa	s City
Convenience	Perc	<u>ent</u> <u>1</u> / 65	Perc	<u>ent 1</u> / 42	Perc	<u>ent</u> <u>1</u> / 67
Already sweetened, don't have to add as much sugar Ready to use, already pitted Easy to prepare, no trouble Quick to prepare, saves time Flavor	55 5 5 	20	34 4  4	37	. 52 14 10	10
Tart, tangy flavor Good, better, superior flavor Sweet taste, sweeter than others Good cherry flavor, not artificial- Syrup gives better flavor to crusts Appearancegood red color, bright	10 5 5 		4 17 4 8 4		10   	20
Cooking properties Juicy, makes juicier pie Firmer, retains shape, doesn't	5	15 5		8 17	5	10 14
cook up Can season to taste Pie always turns out right Price and economy	 	5	9 4 4	4	 5 5	5
Cheaper, don't have to add as much sugar Cheaper, just as cheap as other types Available year round, fresh not	5 		4 		 5	
available				17		10
Just like them, family likes them		5				5
Nothing liked				4		
Not ascertained or don't know		10		4		10
Number of homemakers		20	2	4		21

Table	39Reasons	for	disliking	cherry	products	for	pie	filling,	by	type	of
			I	product	, and city	y					

Reasons	Dallas	Detroit	Kansas City
Canned sour red cherries: 1/	Percent	Percent	Percent
Dislike appearance Dislike cooking properties Dislike flavor Inconvenient to use Expense Other dislikes Not ascertained or don't know	32 30 17 14 10 21	29 18 20 12 24 10 4	37 14 24 10 17 15 3
Number of homemakers	63	51	59
Prepared cherry mix: Dislike flavor Expense Dislike cooking properties Other dislikes Not ascertained or don't know	48 29 9 14 	46 16 23 15 	64 18  9 9
Number of homemakers	21	13	11
Frozen red cherries: Inconvenient to use Expense Dislike flavor Dislike cooking properties Dislike appearance Not ascertained or don't know	100   	 29 29 14 14 14 14	41 17 17 25
Number of homemakers	l	7	12
Canned sour red cherries in syrup: Dislike flavor Expense Inconvenient to use Dislike cooking properties Not ascertained or don't know	50 25 25 	17  83	37 27 9 9 18
Number of homemakers	4	6	11

1/ Percentages add to more than 100 because some homemakers gave more than 1 reason.

Size of can used	Dallas	Detroit	Kansas City
303 2 2 <sup>1</sup> Miscellaneous Don't know Not applicable	Percent 5 62 10 1 19 3	Percent 12 30 2 2 35 19	Percent 10 57 11  18 4
Total	100	100	100
Number of cherry pie bakers	202	205	188

Table 40.--Can size used by cherry pie bakers in baking most recent pie, by city

Table 41 .-- Homemakers having cans of cherries on hand, by size of can, and city

Can on hand, by size	Dallas		Detroit		Kansas City	
Had can of cherries on hand Size on hand: No. 303 No. 2 No. 2 <sup>1</sup> / <sub>2</sub> Miscellaneous Did not have a can on hand	Perc 7 19 2 1/	<u>ent</u> 28 72	Perc           6           1           1	ent 14 86	Perc 6 19 3	28 72
Total	100		100		100	
Number of home- makers	202		205		188	

1/ Less than 1 percent.

Adequacy	Dallas	Detroit	Kansas City
	Percent	Percent	Percent
l can makes an adequate pie - l can does not make an	87	53	65
adequate pie Not ascertained or don't	12	33	30
know	ì	14	5
Total	100	100	100
Number of homemakers	202	205	188

Table 42.--Homemakers opinions on the adequacy of the pie filling made from one can of cherries, by city

Table 43.--Number of cans used in baking a cherry pie, by city

Number	Dallas	Detroit	Kansas City
Less than 1 can l can l <sup>1</sup> / <sub>2</sub> cans 2 cans More than 2 cans Not ascertained and don't know	Percent           3           91           4           1              1	<u>Percent</u> 62 7 14 1 16	Percent 1 73 9 11 <u>1</u> / 6
Total	100	100	100
Number of homemakers	202	205	188 .

1/ Less than 1 percent.

Dallas Detroit Source of recipe Kansas City Percent Percent Percent 24 Recipe on can of cherries ---32 27 Cookbook -----27 21 22 Homemakers own recipe -----19 22 20 Mother, grandmother, mother-in-law -----12 17 27 Friend, neighbor -----3 4 5 Newspaper, magazine -----3 4 1 Miscellaneous -----1 Not ascertained -----4 • 4 1 Total -----100 100 100 Number of homemakers ---205 188 202

Table 44.--Homemakers source of recipe for cherry pie, by city

Table 45 .-- Size of pan used in baking cherry pies, by number of servings obtained, by city

10 inches Percent and over 10 45 44 ω Ц ł 1 9 inches Percent 100 Kansas City З 8 63  $\sim$ ł 121 Percent 8 inches ٩ 45 Ś 2 100 20 ನ 23 7 inches Percent and under 100 50 20 δ ł ł 1 10 inches Percent and over 100 σ 55 σ 2 ł 21 Percent 8 9 inches inches 100 122 12  $\sim$ 69 5 Ч Detroit Percent 100 62 62 74 5 ω Ч 7 inches Percent and under S 46 ł 100 Ц З ł 10 inches Percent and over 10 22 Ц 67 1  $\sim$ 1 Percent 8 9 inches inches 100 150  $\sim$ 4 85  $\sim$ Ч Dallas Percent 10 38 4 8 2 9 ł 7 inches Percent under and 100 38 12 ~ 3 1 S Total ----don't know ------makers -----7 and over ------Number of home-Not ascertained or Number of servings 9 4 Ś

- 55 -

Cherry pies baked for:	Dallas	Detroit	Kansas City
Guests Family Both Not ascertained	Percent           17           79           3           1	<u>Percent</u> 10 83 7 	<u>Percent</u> 18 74 8
Total	100	100	100
Number of homemakers	202	205	188

Table 46.--Persons for whom cherry pies are baked, by city

Table 47 .-- Number of cherry pies baked at one time, by city

Number	Dallas	Detroit	Kansas City
One Two Three Four More than 4 Not ascertained	Percent 75 20 2 2 2 1	Percent 68 23 4 2 1 2	Percent 64 30 2 2 1 1
Total	100	100	100
Number of homemakers	202	205	188

Opinion expressed	Dallas	Detroit	Kansas City
	Percent	Percent	Percent
Cherry pie is expensive to bake Cherry pie is not expensive	5	7	6
to bake	94	88	93
Not ascertained or don't know	1.	5	1
Total	100	100	100
Number of homemakers	249	255	221

Table 48.--Homemakers opinions on the expense of baking cherry pie, by city

Table 49.--Changes in frequency of baking cherry pies 1954 - 1953, by city

Changes in frequency of baking cherry pies	Dallas	Detroit	Kansas City
Bakes more often Bakes less often Bakes the same Not ascertained	Percent 11 20 68 1	<u>Percent</u> 9 23 68 	Percent 16 31 53 
Total	100	100	100
Number of homemakers	202	205	188

Table 50.--Reasons for baking cherry pie more frequently, by city

Reasons	Dallas Detroit		Kansas City	
	Percent	Percent	Percent	
Family larger, children older -	45	33	31	
Tastes have changed, like cherry pie now	31	11	10	
Learned to bake recently	9		17	
More time to bake, not working now	5	17	24	
Receive cherries as gifts, can get fresh cherries now		17	4	
Entertain more now		6		
Cherry products have improved in flavor, ease of use		5	6	
Pack more lunches now			4	
Miscellaneous	5			
Not ascertained or don't know -	5	11	4	
Total	100	100	100	
Number of homemakers	22	18	29	

Reasons	Dallas	Dallas Detroit	
Family smaller Less time to bake Tastes have changed Reducing, don't eat sweets Health reasons, restricted diet Too expensive now Haven't thought about it Miscellaneous Not ascertained or don't know -	Percent 27 22 17 12 7 3  9 3	Percent 33 15 21 11 2 6 2 6 4	Percent 31 20 24 .7 7 3 3 2 3
Total	100	100	100
Number of homemakers	41	48	59

Table 51 .-- Reasons for baking cherry pie less frequently, by city

Table 52.--Extent of use of canned sour red cherries other than in a pie, by city

Use or nonuse	Dallas Detroit		Kansas City	
	Percent	Percent	Percent	
Used canned sour red cherries -	19	14	19	
Did not use canned sour red cherries	81	85	81	
Not ascertained or don't know		1.	60 KG	
Total	100	100	100	
Number of homemakers	361	405	287	

Table 53.--Reasons for not using canned sour red cherries other than in a pie, by city

Reasons	Dallas	Detroit	Kansas City
	Percent 1/	Percent 1/	Percent 1
No use for them, no call for them Don't know how to use them	24	33	27
except in pie; no recipe for them Cherries too sour, bitter,	24	8	20
acid	20	21	10
Don't like cherries for any purpose Just hadn't thought of it;	13	12	8
never think of cherries except for pie Don't like cherries except	8	3	10
in pie	5	8	12
Healthdigestion (can't eat tart fruit) Don't have time	չէ չէ	3 2	<u>2</u> / <sup>3</sup>
Too expensive, don't have much money	3	l	4
Prefer fresh fruit; use only fresh fruit Prefer mix; mix is easier	l	3	2
to use Have fruit tree, can own	1	3	
Miscellaneous	2	2	4
Not ascertained or don't know	<u>2</u> /	6	l
Number of homemakers	292	346	231

1/ Percentages add to more than 100 because some homemakers gave more than 1 reason.

2/ Less than 1 percent.

Uses	Dallas	Detroit	Kansas City	
	Percent 1/	Percent 1/	Percent 1/	
Cobblers, fritters	59	37	38	
Salads	19	7	16	
Jello, puddings	12	5	16	
Preserves, jam	10	5	7	
Cakes	7	25	16	
Topping for pudding, ice cream	4	Ż7	20	
Eat as fruit	3	5	16	
In beverages	l	4		
Miscellaneous		2	2	
Not ascertained		2		
Number of homemakers	69	56	55	

Table 54.--Selected uses of canned sour red cherries reported by homemakers, by city

1/ Percentages add to more than 100 because some homemakers gave more than 1 use.

Table 55.--Reasons for use of canned sour red cherries for desserts other than pie, by city

Reasons	Dallas	Detroit	Kansas City
	Percent 1/	Percent 1/	Percent 1/
Tart, tangy, spicy flavor Colorful, pretty, nice red	38	18	24
color	25 23 10 7 4	11 14 12 16 11	18 16 9 13 16
Quick to prepare, saves time Good for children	ն <u>։</u> Նլ	μ 	11
Cherries are cheap, eco- nomical to use in salads - To use cherries and juice	l	2	2
left over from pies Just wanted to try it	1		4
Can season to taste, sweeten to taste Nice and sweet, don't take		2	4
much sugar Not fattening, low in	67 m	2	2
calories			<u>1</u> +
Had them on hand Miscellaneous Not ascertained or don't	3	7	4 7
Not ascertained or don't know	23	21	11
Number of homemakers	69	56	55

1/ Percentages add to more than 100 because some homemakers gave more than 1 reason.

Table 56.--Homemakers who had heard of and used frozen cherries and canned red sour cherries in syrup, by city

Awareness and product use	Dallas		Detroit		Kansas City	
	Perce	ent	Percent		Percent	
Frozen cherries:						1
Heard of frozen cherries Used product Did not use product Had not heard of frozen	<u>1/</u> 19	19	2 49	51	4 60	64
cherries		81 		48 1		36 <u>1</u> /
Total	100		100		100	
Number of homemakers	361		405		287	
Canned red sour cherries in syrup: Heard of canned red sour cherries in syrup Used product Did not use product Had not heard of canned red sour cherries in syrup Not ascertained and don't know	4 19	23 77 	5 34	39 61 <u>1</u> /	3 40	43 57 
Total	100		l	00	10	0
Number of homemakers	361		405		28	7

1/ Less that 1 percent.

Table 57 .-- Reasons for not using frozen cherries other than in a pie, by city

Reasons	Dallas	Detroit	Kansas City
	Percent 1/	Percent 1/	Percent 1/
Don't like cherries for any purpose -	18	14	11
Habit	13	1	4
No use for them; no call for them	9	7	6 3 10
Don't bakedon't cook much	9 7	3 9 1	3
Too expensivedon't have much money- Not availablenever see them	7	9	TO
Prefer canned cherries	6		1
Eat very few sweetsdesserts	6	3 1	5
Prefer fresh fruitsuse only	0		2
fresh fruits	4	4	3
Dislike taste of cherries, sour,	4	7	5
bitter, acid	3	7	2
Crowds freezer; don't have a freezer-		5	8
Don't use (like) frozen food	3	5	
Have own treecan or freeze own	3 3 3	5	5
Haven't thought of itthink of it	5		Ŧ
only for pie	3	5	2
Easier to open a can	3 3		
Healthdigestion (can't eat tart			
fruit)	1	3	2
Can too small	l	3 1,	1
Not firm enough	l		
Don't like cherries except in pies		3	5
Know how to use only in pie no		Ŭ	
recipe calling for them		2	8
Packed in too much sugar		l	2
Have to defrost thaw frozen			2
Freezing takes out tastegoodness			
frozen out			2
Have supply of canned cherries			1
Just haven'tno reason	7	19	9
Miscellaneous	4	1	5
Not ascertained or don't know	l	3	2
	(5	000	270
Number of homemakers	67	200	172
1/ Percentages add to more than 100	) because some	homemakers	gave more

1/ Percentages add to more than 100 because some homemakers gave more than 1 reason.

	T	1	
Reasons	Dallas	Detroit	Kansas City
	Percent 1/	Percent 1/	Percent 1/
Don't know how to use them except in piesdon't have recipe			
calling for them	17	4	9
Prefer canned cherries	12	3	15
Don't like cherries for any purpose - Just haven't thought of itnever	10	15	6
think of it except for pies	9	8	3
Too sweet	7	2	7
Don't like taste of cherriestoo			
sour, bitter, acid	6	14	4
No use for themno call for them		10	9
Don't bakecook much	6	4	96
Never see them not available	6		3
Prefer fresh fruituse only fresh			
fruit	4	7	3 4
Healthdigestion	3	4	
Too expensive, don't have much money-	3 3 3 3	. 4	6
Don't have time	3	2	2
Don't like cherries except for pies - Don't eat many sweetsdon't make	3	l	6
many desserts	1	1	3
Syrup takes away cherry taste	1	1	
Habit	1		
Have own tree, no reason to buy			
themcan own		5	7
Prefer to sweeten to own taste		2	4
Packed in too much syrup		1	1
Have supply of canned cherries			1
Just haven'tno reason	24	10	7
Miscellaneous	9	3 7	3
Not ascertained or don't know	l	7	5
Number of homemakers	69	136	115

1/ Percentages add to more than 100 because some homemakers gave more than 1 reason.

Purchases	Dallas Detroit		Kansas City	
	Percent	Percent	Percent	
Frozen pies only	10	6	15	
Bakery pies only	69	78	75	
Frozen and bakery pies	21	15	10	
Not ascertained	1			
Total	100	100	100	
Number of homemakers	182	223	146	

Table 59.--Commercially prepared pie purchases in last year, by type and city

Reasons	Dallas	Detroit	Kansas City
	Percent 1/	Percent 1/	Percent 1/
No time to bake, saves time Handy, convenient, saves work Don't like to bake Good flavor, delicious Just as cheap, cheaper to buy than bake Too tired, old, ill to bake Bakery pies better, just as good as own	57 13 9 9 8 5 5 4 3 2 2 2 2 1 1 1	53 8 9 3 7 5 2 1 5 5 2 1 3 1 3 1	49 10 6 3 7 8 3 5 6 4 7 4 1 2 1 2
Convenient to store frozen pies, keep well Miscellaneous Not ascertained or don't know	2 2	<u>2</u> / 10	1 3 4
Number of homemakers	182	223	146

Table 60 .-- Reasons for buying pies, by city

1/ Percentages add to more than 100 because some homemakers gave more than 1 reason.

2/ Less than 1 percent.

Kind of pies	Dallas	Detroit	Kansas City
Apple Cherry Peach Apricot Blueberry Pineapple Strawberry Coconut cream Chocolate cream Lemon cream Pecan	Percent 64 48 20 23 6 15 4 9 9 6 29	Percent 65 40 14 1 18 17 5 11 8 18 18 2	Percent 53 56 28 .5 8 9 10 3 3 8 8 8
Number of pie purchasers -	182	223	146

Table 61.--Proportion of homemakers purchasing selected pies in each city

Table 62.--Frequency of purchasing pies, by city

Frequency	Dallas	Detroit	Kansas City
5 or more times a month 4 - 5 times a month 3 - 4 times a month 2 - 3 times a month 1 - 2 times a month 6 - 12 times a year Less than 6 times a year Not ascertained	Percent 2 8 4 10 18 20 37 1	Percent 3 9 1 4 20 14 41 8	Percent 3 5 1 6 17 13 47 8
Total	100	100	100
Number of cases Median frequency	182 9.6	223 6.4	146 5.1

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