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ANALYSIS OF PURE MAPLE SYRUP CONSUMERS



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ABSTRACT

Virtually all of the pure maple syrup production in the United States is in the northern states of Maine, Massachusetts, Michigan, New Hampshire, New York, Ohio, Pennsylvania, Vermont, and Wisconsin. Pure maple syrup users living in the maple production area and users living in other areas of the United States were asked a series of questions about their use of pure maple syrup and their responses were compared. User attitudes toward the product, syrup-use patterns, syrup-packaging characteristics, and syrup-purchasing patterns are identified and discussed.

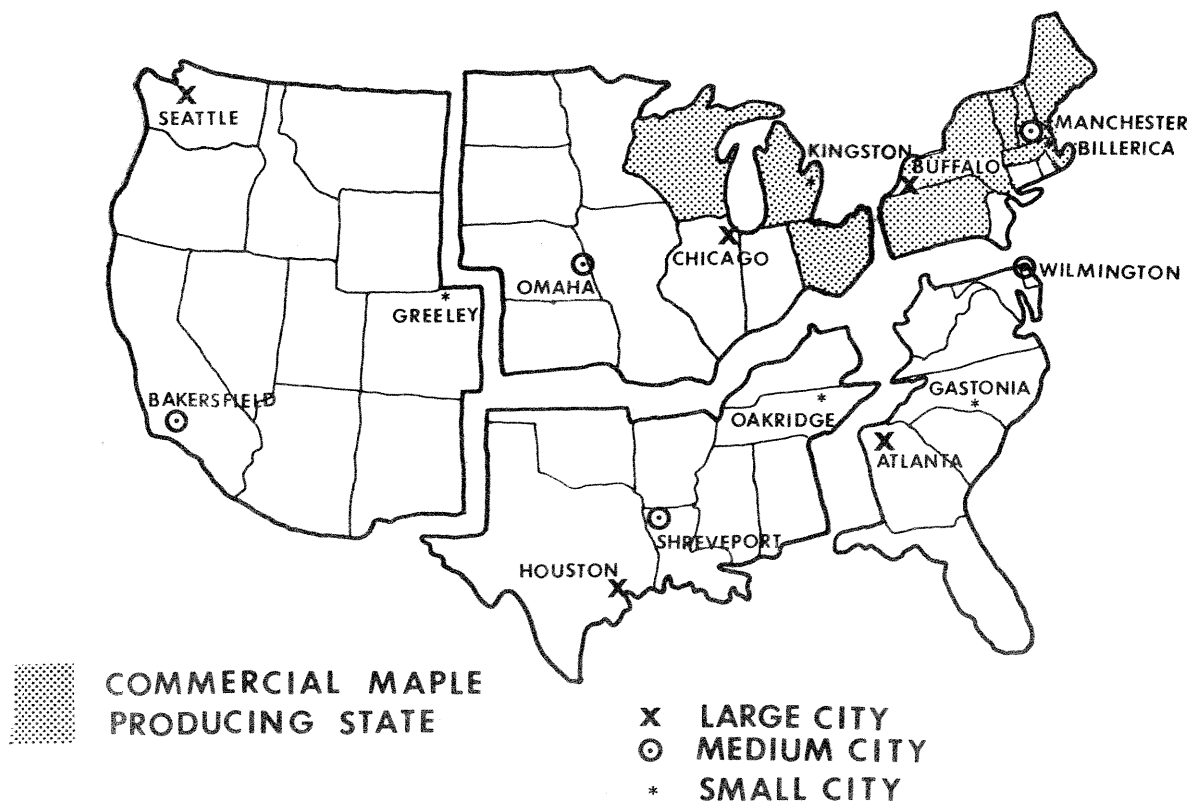


Figure 1.—Location of cities sampled in the pure maple syrup consumer survey.

MAPLE SYRUP—the 100 percent pure product processed from the sap of the sugar maple tree—is commercially made only in North America. The bulk of the pure maple syrup market is still supplied by independent farmers, some of them still using the time-honored techniques and equipment of their fathers and grandfathers who lived when ‘sugarin’ was commonplace.

Much of the research in the maple sugar industry has been concerned with these producers and their methods of production. Little attention has been paid to the final consumer

of the product. To help the producer understand the consumer market we conducted a national survey of pure maple syrup users. The results of the study should serve as a primary source of information for making syrup-marketing decisions and initiating future syrup-marketing research.

The intent of the study was to identify: (1) consumer preference for pure maple syrup, (2) consumer preference for retail syrup packaging and, (3) consumer syrup purchasing patterns.

STUDY METHOD

The United States was divided into five geographic divisions: Northeast, Southeast, South, Midwest, and West (fig. 1). Within each division three cities were randomly selected—a large Standard Metropolitan Statistical Area (S.M.S.A., with a population of one million or more); a smaller metropolitan area (population 50 thousand to one million); and a city not included in an S.M.S.A. and having less than 50 thousand inhabitants.

In each sample city, randomly selected telephone numbers were called. In each answering household the interviewer determined if pure maple syrup was used in the past 12 months by asking the respondent to bring the container of syrup to the phone. If the respondent did not have the container of syrup, a series of questions were asked to determine if pure maple syrup was used. An interview averaging about 18 minutes in length was then administered to only those households where pure maple syrup was used. Housewives were interviewed because they make most of the family food purchases and plan and prepare most of the meals. All interviews were conducted by a national marketing survey firm in August and September 1971.

An initial subsample of 300 phone calls was made in each sample city to estimate the proportion of pure maple syrup users. The remaining sample was apportioned on the

basis of these estimates of pure maple syrup use and resulted in a national sample of 1431 respondents. Most of the sample (77.4 percent) fell in the Northeast and Midwest divisions, which contain the commercial maple producing area and have the highest proportion of maple syrup users. The sample was about equally divided among large, medium, and small cities. Two-thirds of the sample was in states reporting commercial maple production (table 1).

Table 1.—Allocation of national maple user survey sample by geographic division, city size, and in relation to maple-producing area

Classification	Percent of sample
Northeast	46.2
Southeast	8.3
South	3.5
Midwest	31.2
West	10.8
Total	100.0
Large metro area	32.6
Smaller metro areas	28.9
Cities not in metro area	38.5
Total	100.0
Locations inside the maple area	67.2
All other locations	32.8
Total	100.0

MAPLE PRODUCING AREA VERSUS REMAINING AREA

Virtually all of the commercial pure maple syrup produced in the United States is made in the northern states of Maine, Massachusetts, Michigan, New Hampshire, New York, Ohio, Pennsylvania, Vermont, and Wisconsin (fig. 1). Most of the pure maple syrup produced and sold as table syrup is sold in these states. This area of local markets, corresponding to the area of commercial production, is the most important area to the maple producer. The four cities of Billerica, Buffalo, Kingston, and Manchester are located in the area of local markets.

The remaining 11 cities in the study were located outside of the commercial maple-producing area and were defined as distant markets. For purposes of analysis the data were stratified by location of the sample city relative to the area of commercial maple production.

Incidence of pure maple syrup use is defined as the ratio of the number of households in which pure maple syrup was used to the total number of households contacted in the survey. Expressed as a percentage, the overall incidence of use of pure maple syrup was estimated to be 7.5 percent. In the maple area, incidence of use was about 18.3 percent; outside of the maple area it was about 4.4 percent.

Incidence was estimated by stratifying the total population in a geographic division into population living in large S.M.S.A.s, all other S.M.S.A.s, and all of the remaining population.¹ The incidence of use observed in the survey corresponding to these population strata were assumed to be representative of the geographic divisions. The observed incidences were then weighted by the number of people within each stratum, yielding an estimate of incidence for the whole geographic division.

The maple area was defined to include nine northern states. Maple production in some of these states is restricted to only a few counties. However, with two exceptions, the entire state was assumed to be a part of the maple area. The two exceptions are the New York and Philadelphia S.M.S.A.s. These two large population centers border the non-maple producing area and are located far from the areas where most of the maple syrup is produced in New York and Pennsylvania. The incidence of maple use observed outside the maple area was felt to be more representative of these S.M.S.A.s than that observed in the maple area.

¹U.S. Bureau of Census, Census of Population: 1970, General Population Characteristics, Final Report PC (1)-B1, United States Summary.

PURE MAPLE SYRUP USER CHARACTERISTICS

Age, Household Size, Number of Children, and Income

Housewives interviewed in the maple area were slightly younger than housewives interviewed outside the maple area. The modal age class in the maple area was 35 to 44 years and outside the area it was 45 to 54 years. There was a smaller percentage of one- and two-member households interviewed in the maple area (36 percent) than interviewed outside the area (44 percent). A greater percentage of households interviewed in the maple

area had children between the ages of 6 and 12 (32 percent) than did households interviewed outside the area (24 percent). The modal income class was \$10,000 to \$14,900 for families interviewed in both areas, but there was a smaller percentage of respondents in the \$10,000 and over income range in the maple area than there was outside the area. More detailed information on user characteristics can be found in tables in the Appendix.

Data from the 1970 Census were available for the 10 Standard Metropolitan Statistical

Areas in the survey.² In both the Buffalo and Manchester S.M.S.A.s Census data indicate that the modal age class for females age 20 years or older was 45 to 54 years. This was just above the modal age class of 35 to 44 years observed in our survey for housewives interviewed in the maple area. However, participants in the Buffalo and Manchester areas accounted for only half of the sample in the maple area. Kingston and Billerica account for the other half of the sample, and Census data were not available for these cities.

In all of the eight S.M.S.A.s outside of the maple area, the Census data indicate that the modal age class for females age 20 years or older was 25 to 34 years. This is two age classes below the modal class of 45 to 54 years observed for housewives interviewed to our survey outside the maple area. Participants in these eight S.M.S.A.s account for about 80 percent of our survey sample outside the maple area.

Comparisons of average household size for the 10 S.M.S.A.s between the survey data and the Census data indicate little difference, especially if Shreveport and Atlanta are ex-

cluded because of the very small sample observed there. The Census data indicate an average household size varying between 3 and 3¼ persons. In our survey the average household size ranged between 3 and 3½ persons.

Income data obtained in our survey were not directly comparable to the Census income data. In our survey, participants were only required to indicate the income class which contained their income. In the Census actual income is obtained, and the mean and median incomes are calculated. For the maple area, the mean Census incomes for Buffalo and Manchester fell within the modal income class of \$10,000 to \$14,000 observed in our survey. The same was true for the mean incomes of six of the eight S.M.S.A.s outside the maple area. However, the mean incomes given by the Census report for Bakersfield and Shreveport were just below the lower limit of the modal income class observed in the survey.

It is difficult to generalize about the differences between the populations of maple users observed in our survey within the maple area and outside this area. Compared to available Census data, our sample of maple users appears to be representative of the general populations in these areas, although our sample size in each city is relatively small.

²U.S. Bureau of Census, Census of Population and Housing, Census Tracts, Final Reports PHC(1)-14; -18; -35; -43; -89; -124; -153; -195; -197; -234.

ATTITUDE TOWARD PURE MAPLE SYRUP

Respondents³ were asked to consider if each of five characteristics was very important, somewhat important, or not at all important to their use of pure maple syrup. The characteristics of pure maple syrup were: It has a unique flavor, it is convenient to purchase (available where you usually shop), it is a traditional American food product, it is a natural food item, it is available year-round. There was little difference in the frequency and order of ranking between areas. Ranked according to how often they were considered

very important by all respondents combined the characteristics are:

- (1) Has a unique flavor (79.7 percent of the respondents)
- (2) Is a natural food item (58.3 percent of the respondents)
- (3) Is available year-round (57.5 percent of the respondents)
- (4) Is convenient to purchase (54.3 percent of the respondents)
- (5) Is a traditional American food product (41.5 percent of the respondents)

The results of the survey indicate that there is considerable use of other syrups and toppings among pure maple syrup users. Only

³Respondents were housewives who used pure maple syrup and were interviewed in this survey.

one-fourth of the respondents in the maple area and one-fifth of the respondents outside the area who used pure maple syrup used it exclusively during the 12 months preceding the survey.

Maple flavored syrups were used by about 60 percent of the respondents. These include maple blends which contain a small percentage of pure maple syrup and also wholly artificially maple flavored syrup (table 2). Honey and maple flavored syrups were used as often as or more often than pure maple syrup by a majority of the respondents (table 3).

Most respondents—81 percent in the maple area, 76 percent outside the area—said that they liked the flavor of pure maple syrup better than any other syrup or topping. The disparity between stated preference and behavior reflects different preferences among family members, product price differences, availability, and desire for variety.

Consumer satisfaction was measured in terms of the expressed intent to purchase pure maple syrup in the future. About 7 percent of the respondents indicated that they probably would not or definitely would not purchase pure maple syrup again. The most frequently given reason was "too expensive." Sixty-two percent of the respondents indicated that they definitely intend to purchase pure maple syrup again. The remaining replies were between the two extremes.

In summary:

- The majority of respondents ranked unique flavor as very important to their use of pure maple syrup.
- Most of the respondents use other syrups and toppings beside pure maple syrup but prefer the taste of pure maple syrup to the other syrups and toppings (tables 2 and 3).

Table 2.—*Toppings used in the home in addition to pure maple syrup*

Toppings	Percentage	
	Maple area	Other area
Molasses	13.5	21.5
Honey	33.6	50.6
Maple flavored syrup	58.2	62.8
Other syrups	17.9	35.1
None of the above	25.7	17.9
Basis: Total number of respondents	961	470

Table 3.—*Frequency of use of other toppings relative to pure maple syrup*

Frequency of use	Percentage	
	Maple area	Other area
MAPLE FLAVORED SYRUPS		
More than pure maple syrup	43.1	44.9
Equal to	27.5	24.5
Less than	29.4	30.6
Basis: Total respondents ^a	537	294
NON-MAPLE FLAVORED SYRUPS		
More than	25.1	28.7
Equal to	22.1	21.3
Less than	52.8	50.0
Basis: Total respondents	163	160
HONEY		
More than	32.3	31.5
Equal to	24.4	25.0
Less than	43.3	43.5
Basis: Total respondents	316	232
MOLASSES		
More than	16.9	20.2
Equal to	20.0	18.2
Less than	63.1	61.6
Basis: Total respondents	130	99

^aTotal respondents includes only those indicating use of the particular topping.

MAPLE SYRUP USE AND CONSUMPTION PATTERNS

Almost all respondents in the survey who used pure maple syrup used it as a topping on pancakes, waffles, and French toast (table 4). Minor uses included topping on ice cream, cereal, and in drinks. Uses other than topping included cooking, baking, and candymaking. Less than 20 percent of all respondents indicated that they used pure maple syrup for cooking or baking. Less than 10 percent used it to make candy.

The frequency of use or the number of times pure maple syrup was used per household differed between areas both between seasons and within seasons (table 5). In the maple area, pure maple syrup is used much more consistently year-round. Even in the

summer, the season of lowest use in all areas, 65 percent of the respondents in the maple area used pure maple at least once, while outside the area only 43 percent used maple at least once. Most respondents used pure maple syrup in the winter—81 percent in the maple area and 84 percent outside the area. Fall and spring use in the maple area were about equal at 73 percent of the respondents. Outside of the maple area, spring use was indicated by 45 percent of respondents and fall use was indicated by 64 percent.

Syrup consumption data were not gathered directly; however, annual consumption per household can be roughly estimated from syrup production figures for 1971 and the total number of pure maple syrup using households in the U.S. The total maple syrup supply in the U. S. in 1971 was about two million gallons—one million produced in the U. S. and one million imported from Canada. About 400 thousand gallons of this syrup was purchased for use in maple-cane syrup blends leaving 1.6 million gallons available for table use.⁴

The average number of maple using households per 100 households contacted in the survey was 7.5 or about 4¾ million households. This means that the average con-

Table 4.—Foods used with pure maple syrup

Food	Percentage	
	Maple area	Other area
Pancakes	95.2	92.7
Waffles	56.9	63.9
French toast	57.3	42.4
Ice cream	28.9	12.4
Cereal	5.7	3.0
Drinks	2.6	1.5
Others	22.8	26.0
Basis: Total number of respondents ^a	959	469

^aThe total number of respondents in the survey was 1431, however, the total number of respondents in each table may not equal that number because of nonresponse to particular questions.

⁴Marvin, D. R. "Maple Syrup and the Blends" *National Maple Syrup Digest*. Vol. 12, No. 3. October, 1973. pp. 12-15.

Table 5.—Frequency of pure maple syrup use by season

Frequency of use	Percentage of respondents							
	Summer		Fall		Winter		Spring	
	M.A. ^a	O.A. ^b	M.A.	O.A.	M.A.	O.A.	M.A.	O.A.
More than once a week	15.5	8.9	16.9	15.0	19.2	18.9	18.7	9.6
Once a week	15.5	11.7	18.1	16.3	20.6	23.8	18.2	12.0
Three times per month	8.3	4.3	10.0	7.5	11.0	10.1	9.4	5.3
Twice per month	13.8	8.5	15.5	12.6	16.3	15.2	15.1	9.0
Once per month	12.2	9.8	12.5	12.4	14.4	16.4	12.4	9.4
Not used	34.9	56.6	27.0	36.2	18.6	15.7	26.2	54.7
Basis: Total number of respondents	944	469	941	467	939	466	942	468

^aM.A. = Maple area

^bO.A. = Other area

sumption of pure maple syrup per using household was about 2¾ pints in 1971. In summary:

- All respondents used pure maple syrup as topping on other foods but few used it for cooking, baking, or candymaking.
- Maple syrup is used more frequently and

consistently year-round per household in the maple area than it is outside the area (table 5).

- Estimated average annual pure maple syrup consumption for households purchasing maple syrup in the 12 months preceding the survey was about 2¾ pints.

MAPLE SYRUP PACKAGING

Packaging in the retail food distribution system has become almost as important as the food product itself. The package must meet certain minimum functional requirements for protecting the contents, it must not be deceiving to the consumer, it must carry certain informational labeling, and it is usually used to advertise and promote the contents.

There are three main types of pure maple containers—tin, glass, and plastic. Plastic containers are fairly new and the data indicate little syrup is packed in plastic (table 6). Only about 4 percent of the respondents indicated that they purchased pure maple syrup or received it as a gift in a plastic container.

The metal syrup can with its bright lithographed maple sugaring scene has been the traditional retail package for pure maple syrup. The metal syrup can still accounts for the largest share of the retail syrup market in the maple area. However, the glass container is the predominant pure maple syrup container outside the maple area.

In the maple area 56 percent of the respondents purchased syrup in a tin container compared to 30 percent outside of the area.

Table 6.—Type of maple syrup container most recently purchased or received as a gift

Type	Percentage	
	Maple area	Other area
Metal	55.9	30.2
Plastic	4.3	3.5
Glass	39.8	66.3
Basis: Total number of respondents	954	463

Forty percent of the respondents in the maple area purchased syrup in a glass container compared to 66 percent outside the area.

When asked for their preference for a container a marked deviation from purchasing behavior was apparent. In the maple area, 50 percent of the respondents said that they prefer glass and almost 25 percent said that they prefer plastic (table 7).

Table 7.—Type of maple syrup container preferred

Type	Percentage	
	Maple area	Other area
Metal	25.3	16.1
Plastic	24.5	23.2
Glass	50.2	60.7
Basis: Total number of respondents	916	453

Outside the maple area glass was the most frequently purchased container type. Almost 61 percent of the respondents said they preferred glass compared to over 66 percent who said they now purchase in glass. Only 16 percent of the respondents preferred the metal container. Again, over 23 percent of the respondents indicated a preference for a plastic container.

Size of container purchased or received as a gift differed between areas. In the maple area, the most frequently purchased size is the gallon, followed by the quart and the pint. Outside of the maple-producing area the most frequently purchased sizes are the pint, the quart, and the half pint (table 8).

Table 8.—Size of maple syrup container usually purchased or received as a gift

Size	Percentage	
	Maple area	Other area
1/2 pint	4.6	17.2
3/4 pint	2.7	9.0
1 pint	19.4	34.6
1 1/2 pints	3.0	4.7
1 quart	26.4	19.6
1/2 gallon	13.8	6.9
1 gallon	28.1	6.5
Other	2.0	1.5
Basis: Total number of respondents	955	465

There was little dissatisfaction expressed over available sizes. The wide range of sizes shown in Table 8, apparently permits users to purchase the size they prefer.

Because the flavor of pure maple syrup is associated with the color of the syrup, the consumers were asked if they would like to see the syrup through the container. Seventy-eight percent in the maple area and 85 percent outside the area said they would, implying preference for a clear glass or plastic container.

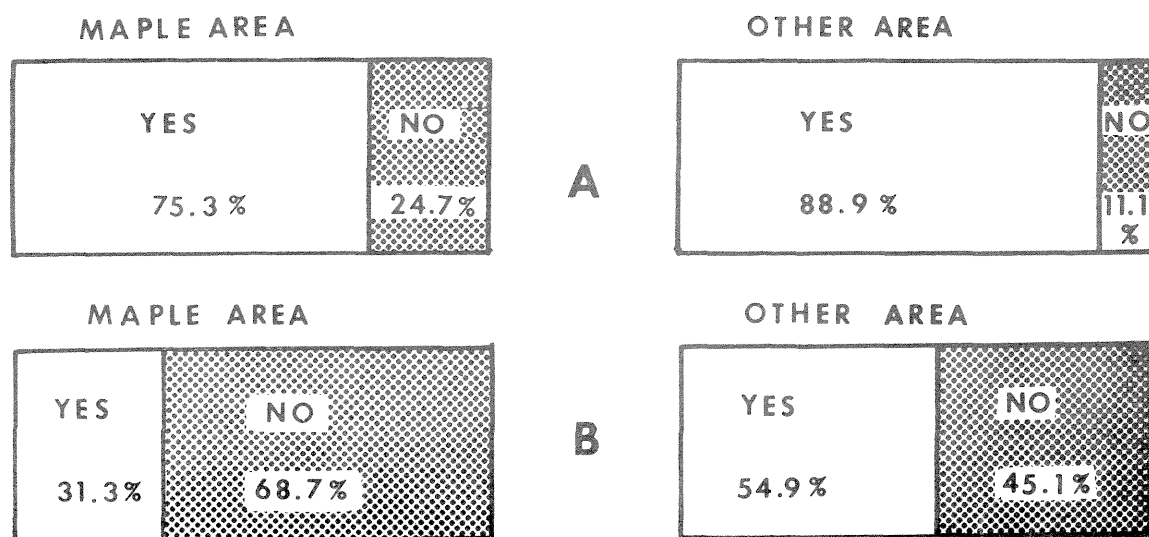
A majority of the respondents, 65 percent

in the maple producing area and 61 percent outside the area, said that they prefer to see the container illustrated with a maple sugaring scene. A scenic label depicting the unique production process of pure maple syrup may help promote product use.

Finally some questions were asked about the utility of maple syrup containers. Replies were largely a function of container size. In the maple-producing area, where large containers predominated, the retail container was used less often for storage of syrup and as a table dispenser. Outside of the maple producing area, where smaller containers predominated, these uses were more frequent (fig. 2). In summary:

- The metal syrup can still accounts for the largest share of the retail pure maple syrup market in the maple area (table 6).
- Maple syrup was purchased in larger containers in the maple area than outside the area.
- Respondents in both areas expressed a desire for more syrup to be packaged in plastic and respondents in the maple area also expressed a desire for more syrup to be packaged in glass.

Figure 2.—Use of retail maple syrup container for storage of syrup (A) and as a table dispenser (B). Basis: Total number of respondents in the maple area, 953; other area, 466.



MAPLE SYRUP PURCHASING PATTERNS

This section of the report excludes those respondents who did not purchase pure maple syrup but only received it as a gift. It includes those 965 respondents who purchased syrup but also may have received it as a gift.

According to the respondents who purchased pure maple syrup in retail grocery stores or supermarkets, many of these stores are treating the product as just another table syrup. Eighty percent of the grocery-store purchasers of pure maple syrup found pure maple in the same shelf area as other table syrups.

Pure maple syrup is not favored by price comparisons with the common maple-flavored cane sugar syrup blends which contain a very small percentage of pure maple sugar. A popular maple-flavored cane sugar syrup in a 24-ounce container sold for 3 cents an ounce in 1972 compared to 10 cents an ounce for pure maple syrup in a 32-ounce container. Also, the smaller the container, the more expensive the syrup is per ounce. In 1972, pure maple syrup in 16-ounce containers averaged 13.4 cents an ounce and in 8-ounce containers, 18.1 cents an ounce.⁵

Sixty percent of the respondents in the maple area purchased maple syrup at a roadside stand, sugar house, or farmer's house (table 9). This percentage held in general for both the large metropolitan area, Buffalo, New York, and the intermediate metropolitan area, Manchester, New Hampshire. This implies that a large portion of the pure maple syrup supply does not move through conventional mass-marketing channels.

Outside of the maple area the retail grocery store or supermarket was the most frequently-given source of pure maple syrup. About 25 percent of the respondents in the maple area indicated that this was their source of pure maple syrup. The specialty shop (health food store or delicatessen) and gift shop accounted for 10 percent or less of the responses in each area.

Table 9.—Sources of retail purchases of pure maple syrup

Source	Percentage	
	Maple area	Other area
Retail store, supermarket	24.5	67.9
Specialty shop, delicatessen	3.9	10.4
Roadside stand, sugar house, or farmer's house	60.2	9.3
Gift shop	5.9	3.8
Mail order company	.3	2.2
Other	5.2	6.3
Basis: Total number of respondents	674	365

A number of patterns emerged concerning the frequency of syrup purchases. Primarily, there was a seasonal pattern that differed between the maple area and remaining area. In the maple area, most respondents (63 percent) said that they purchased pure maple syrup in the spring (table 10). Twenty and 24 percent of the respondents indicated purchases in the winter and summer, respectively. Thirty-five percent indicated purchasing syrup in the fall.

Outside of the maple area, most respondents (66 percent) said that they purchased pure maple syrup in the winter and 55 percent indicated fall purchases. Thirty-nine and 38 percent indicated summer and spring purchases, respectively.

The seasonal pattern in the maple area probably reflects the seasonal availability of pure maple syrup. Supply of syrup is at its peak in the spring just after the maple sugaring season is completed. The minor fall peak of purchasing activity in the maple area is associated with the increased travel in rural areas during the autumn foliage season.

Outside of the maple area, purchasing peaks occur in the fall and winter. This appears to be associated with frequency of use of pure maple syrup (table 5).

The frequency of purchase within seasons was also determined in the survey. In the maple area a household making a single pur-

⁵New England Crop Reporting Service, "Maple Syrup Price Report" 1972 Crop, November 1, 1972. (Boston: USDA Statistical Reporting Service).

Table 10.—Frequency of pure maple syrup purchase by season

Frequency of purchase	Percentage of respondents							
	Summer		Fall		Winter		Spring	
	M.A. ^a	O.A. ^b	M.A.	O.A.	M.A.	O.A.	M.A.	O.A.
Once a week or more	1.0	4.2	2.3	4.8	1.5	6.0	3.3	4.8
Three times per month	.5	.6	1.2	.3	.8	.6	1.3	.3
Twice a month	1.5	2.4	2.2	3.6	1.6	5.7	2.3	2.7
Once a month	3.6	5.7	3.5	9.0	2.8	11.4	3.0	5.4
Once in two months	1.5	3.6	2.3	7.8	2.6	9.3	2.2	4.2
Once in three months	15.8	22.3	23.9	29.4	10.4	32.9	50.7	20.7
Not purchased	76.2	61.1	64.6	45.0	80.2	34.1	37.1	61.9
Basis: Total number of respondents	608	332	602	333	607	334	601	333

^aM.A. = Maple area^bO.A. = Other area

chase of pure maple syrup per season was more frequently encountered than a household making more than one purchase. Outside of the maple area, households making a single purchase per season were encountered about as frequently as households making more than one purchase. This result reflects the larger average container purchased in the maple area.

In summary:

- The roadside stand, sugar house, or farmer's house is the most important retail

source of pure maple syrup in the maple area (table 9).

- Most respondents in the maple area purchased pure maple syrup in the spring; outside the area most respondents purchased pure maple syrup in the winter (table 10).
- Within seasons, there were more repeat or multiple purchases of pure maple syrup outside the maple area than there were inside the area. This probably reflects the different average container sizes purchased in the two areas.

DISCUSSION

Differences in responses to our survey questions occurred between users living in the maple area and all other users. Many of these differences—for example, frequency of purchase within and between seasons, type and size of the retail syrup container, and retail supply of pure maple syrup—were directly attributable to the differences in the marketing of pure maple syrup in local markets as compared to distant markets. More syrup is purchased in tin in the maple area because more syrup is packaged that way. Roadside stands aren't an important retail source of pure maple syrup outside of the maple area because they don't usually sell maple syrup. The information must be carefully interpreted because some of the characteristics that were identified are determined

by what is available and not by consumer preferences or behavior.

The traditional market for pure maple syrup is the roadside stand, sugar house, or farmer's house. Most of the retail syrup sold is sold through this market. This implies that most of the retail sales of pure maple syrup occur very near the point of syrup production. Attempted expansion of syrup supply to this market may be possible only at the cost of a significant reduction in product price.

The market offering the greatest potential for development is the retail grocery store and supermarket. Just from size alone this market appears to have great potential. The relatively low volume of pure maple syrup sold through this market now and the convenience of purchasing pure maple syrup while making the

usual food purchases adds to the potential for expansion in this market.

The other types of markets, such as the specialty foods shop, mail order, and roadside stand outside the maple-producing area should not be overlooked. Although they represent a smaller total potential sales volume to the industry, as an outlet for one or a few producers in any one area the potential may be great. In these markets pure maple syrup may be promoted to best advantage as a health or natural food and a fancy food product.

From a marketing perspective, one of the most important results obtained from the survey is the determination of the low incidence of product usage. This is most likely the result of inadequate syrup supply. But it also indicates that expansion of the maple syrup industry will not be hampered by lack of potential markets. However, the choice of markets for expansion should be carefully made to maintain product price.

Based on a limited comparison of survey and Census data for age, family size, and income, the sample of pure maple syrup users is fairly representative of the general population of the 10 S.M.S.A.s surveyed. The one exception was the higher modal age class observed in the survey for housewives outside the maple producing area relative to the general population in that area. The survey did not analyze user characteristics by the different types of retail outlets.

Consumers purchase pure maple syrup predominantly for its unique flavor to complement other foods, usually as a topping. Therefore, the supplier should be certain that the syrup he sells meets the quality and preference requirements of the consumer. Marketing focuses on the consumer and should function as the line of communication between consumer and seller or producer.

Although the user of pure maple syrup may want to use pure maple for all of his syrup needs, very few of them do. Our survey indicates that pure maple shares the consumer's syrup requirements with maple-cane syrup blends and other toppings. This is also an indication of short supply, restricted avail-

ability, and the significantly higher price of pure maple syrup.

Respondents were not satisfied with the available syrup containers. This should prompt producers and packagers to experiment with different containers. "An effective package is a selling tool; it is imbued with psychological power that is used for motivating consumers, for promoting confidence in the product or brand."⁶

Although "unique taste" was quoted most often by respondents as very important in their decision to purchase pure maple syrup, the unique and colorful production process and the long history of production should also be considered as a means of consumer motivation. The package is a logical choice for utilizing this source of motivation and the lithographed syrup can was a good application of this concept. Therefore, when considering new packaging, it would be advantageous to emphasize the production process and its history rather than to simply emulate the modern packages developed for the common blended syrups.

Marketing cost and risk vary among markets. Selling in a market with large potential sales such as through retail grocery stores and supermarkets may require a cooperative effort among several large producers. New channels of distribution will have to be opened, retailers will have to be educated about the product, and product advertising and promotion may be necessary. Market intermediaries such as brokers, wholesalers, or formal marketing co-operatives may take over these marketing tasks as product distribution becomes more sophisticated.

The lower costs and risks of marketing in potentially smaller markets might be more attractive to other producers. For example, a producer's own roadside stand avoids distribution cost and allows complete control over sale of the product. Selling through specialty food stores, a producer will incur a distribution cost but avoids the costs and risks associated with maintaining his own retail sales outlet. Sales of his product may

⁶Cheskin, L. *Secrets of Marketing Success* (New York: Trident Press) 1967. 278 pp.

also indirectly benefit from the general advertising and promotion carried out by the specialty food store.

Numerous marketing alternatives are open to the individual producer. Each producer

must carefully evaluate the alternatives available to him in light of his objectives as a maple syrup producer or seller. He should be careful to include all of the costs and risks for each alternative before making a decision.

APPENDIX

Table 11.—Percentage of participating housewives in each age class

Age class	Percentage	
	Maple area	Other area
Less than 20 years	.5	1.5
20-24 years	4.8	7.5
25-34 years	23.2	20.3
35-44 years	23.7	17.1
45-54 years	17.1	21.3
55-64 years	16.0	18.3
More than 64 years	14.6	14.1
Basis: Total number of respondents ^a	952	469

^aThe total number of respondents in the survey was 1431, however, the total number of respondents in each table may not equal that number because of nonresponse to particular questions.

Table 12.—Size of participating households

Number in household	Percentage	
	Maple area	Other area
1	5.6	7.6
2	30.8	35.9
3	17.2	15.7
4	19.0	18.2
5	10.9	13.1
6	8.3	4.9
7 or more	8.2	4.6
Basis: Total number of respondents	941	465

Table 13.—Number of children by age groups

No.	Percentage	
	Maple area	Other area
UNDER 6 YEARS		
None	74.7	75.5
1	14.4	14.7
2	7.9	8.3
3	2.2	1.5
4 or more	.8	.0
6-12 YEARS		
None	68.0	75.5
1	14.9	11.7
2	11.2	7.7
3	4.8	2.6
4 or more	1.3	2.5
13-19 YEARS		
None	72.4	74.7
1	13.4	14.0
2	9.3	8.5
3	3.4	1.9
4 or more	1.5	.9
Basis: Total number of respondents	961	470

Table 14.—Gross annual family income

Income class	Percentage	
	Maple area	Other area
Under \$5,000	17.8	17.3
\$ 5,000 - \$ 7,499	12.6	15.3
\$ 7,500 - \$ 9,999	25.3	17.3
\$10,000 - \$14,999	29.8	23.4
\$15,000 - \$19,999	10.0	15.0
\$20,000 and over	4.5	11.7
Basis: Total number of respondents	708	359

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