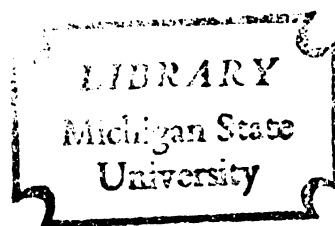


CONSUMER PREFERENCES FOR
POTTED CHRYSANTHEMUM TYPES

Thesis for the Degree of M. S.
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THESIS





ABSTRACT

CONSUMER PREFERENCES FOR

POTTED CHRYSANTHEMUM

TYPES

By

Janet Gertrude Spence

Consumer preferences for the incurved mum, daisy mum, spider mum, decorative mum, and feather decorative mum were evaluated through Michigan State University's Consumer Panel. Information concerning consumer potted mum buying behavior, and consumer socioeconomic background, was gathered. In an effort to determine consumer motivation, five group interviews were held concerning consumer subjective reactions to chrysanthemums. A second follow-up study was conducted to investigate relationships between grower and retailer opinions concerning consumer preferences, and actual consumer preferences.

It was found that marketing a more diverse selection of potted mum types would increase potted mum sales. The most desirable ratio of the five mum types studied from the consumer's point of view lies within the range of: 36-29 incurved mums; 25-21 decorative mums; 20-19 spider mums; 18-17 daisy mums, and 9-6 feather decorative mums. The preference for the different mum types was related to the consumer's socioeconomic background, and it is possible the ratio of

Janet Gertrude Spence

mum types must be modified in accordance with the neighborhood in which they are sold. No relationship was found between what the potted mum type growers and retailers think the consumers like best, and the mum types consumers indicated they liked best.

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Janet Gertrude Spence

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INTRODUCTION

For many years, most of the floriculture industry has taken a hit or miss approach to new product sales. In the past, the quantities in which new products were first offered to the market were based on conjecture. After a period of time, the growers and retailers would reevaluate customer demand for the new product and adjust the amount they marketed accordingly. Gradually, the sales of the new product would reach a plateau. At this point, the amount of the new product offered to the market would be frozen until sales indicated further adjustment was needed.

The problem with this approach to new product marketing is that a great deal of money must be risked initially, when offering the new product to an unsure market. Also, during the gradual process of evaluating market demand, money is lost approximating market size, and in slowly readjusting the quantities of the new product offered to the market. The actual monetary value of losses due to poor estimates of new product sales, the time lag between demonstrated consumer interest in a product, and the reflection of that interest in the market, has never been measured. However, it has become increasingly clear that consumer research is necessary to maximize new product marketing efficiency.

The purpose of this study is to provide information concerning consumer preferences for different types of potted chrysanthemums. Three of the five types of potted chrysanthemums studied are relatively new to the Michigan market. Consequently, their future sales estimates have been based on scanty sales records. It is hoped that this study may provide information from which more accurate sales projections of the future popularity of these types of potted chrysanthemums may be made.

Limitations of Study

The major limitation on the validity of this study is that the chrysanthemum types were selected to show distinct variations in shape. Further limitations reside in the fact that only approximately a hundred male panelists were available, and, therefore, conclusions drawn about male preferences are of limited validity.

REVIEW OF LITERATURE

The Potted Chrysanthemum Industry

The popularity of potted chrysanthemums in the United States has increased from 4.0 percent of the wholesale value of the floriculture crops in 1959 to 7.3 percent in 1970. During this period of time, the wholesale value of the average potted chrysanthemum increased from \$1.20 to \$1.64. Also, the total number of pots sold in the United States more than doubled (Fossum, 1973).

The Michigan potted chrysanthemum industry also grew from 1959 to 1970. The wholesale value of potted chrysanthemums increased from 3.3 to 8.4 percent of the Michigan floricultural crops. Also, the average wholesale value of each pot increased from \$1.34 to \$1.65 (Fossum, 1973). In addition, the number of pots sold more than tripled (U.S. Dept. of Agr., 1971).

The Retail Floriculture Industry From The Consumer's Point of View

Who are the Floral Consumers?

Demographics.

Several studies have defined the demographic characteristics of the flower buyers. Sixty percent of the adult population of the United States purchase flowers (Mitchell, 1973). Fifty to 60 percent of this flower buying public are women (Denby, 1973; Trotter, 1955).

Consumer frequency of flower purchase has been related to the consumer's educational level. High school educated consumers make 46

percent of the total number of flower purchases, while college educated consumers make up 40 percent of the flower purchases. The remaining purchases are made by consumers with grade school educations (U.S. Dept. of Agr., 1969).

Results from a 1968 survey indicated consumers with family incomes between \$5,000 and \$9,999 spend more per capita on flowers than consumers with larger or smaller incomes (U.S. Dept. of Agr., 1969). Zawadzki et al. (1960) reported 40 percent of flowers sold in Rhode Island supermarkets were purchased by consumers who had annual family incomes in excess of \$6,000. In addition, flower sales per customer was greatest in stores located in high income areas.

Middle aged consumers buy the most flowers per capita. Persons forty to forty-nine years old buy flowers more frequently than the average consumer; while persons under twenty-five or over sixty-five buy flowers significantly less often than the average consumer (U.S. Dept. of Agr., 1969).

Psychographics.

Consumer attitudes toward flowers have influenced their frequency of flower purchase, and the amount spent per purchase. Demby (1973) divided the floricultural market into nine market segments.¹ Five of these segments involve female customers.

¹"Market segment--a specific present or potential group of buyers who share some characteristic(s) in common, such as geographic location or buying power." H.A. Lipson and J.R. Darling, Introduction to Marketing, An Administrative Approach, New York: John Wiley & Sons, Inc., 1971, p. 813.

These are designated as: the "Flower lovers, pragmatic indulgers, wishful thinkers, uncommitted, and elderly dispirited." Of these groups, "Flower lovers" and "Pragmatic indulgers" are the most frequent consumers. "Flower lovers" spend more per floral purchase than the average consumer. Unlike other market segments, they see flowers as a legitimate everyday expense, and feel no guilt about buying flowers for themselves. The "Pragmatic indulgers" buy flowers relatively frequently, but are very price conscious. They tend to favor plants, particularly the flowering types.

Demby divided male flower buyers into four market segments entitled: "Impulsives, nature lovers, obligated, and traditionalists." The two male market segments that buy the most flowers were the "Impulsives" and the "Nature lovers." The "Impulsives" purchase flowers often as everyday gifts, but generally pay less per purchase than the average consumer. They see flowers as an affectionate gift to women. The "Nature lovers" personally enjoy flowers, and are very sensitive to the aesthetic attributes of flowers. They see them as suitable for everyday occasions, and buy flowers more than other gift items, spending more per purchase than the average male.

For Whom do Consumers Purchase Flowers?

Most cut flowers and potted plants are purchased for a female friend or relative. As illustrated in Table 1., female consumers purchase flowers most often for their friends, themselves,

and other female relatives. Male consumers purchase most often for their wives, friends, or other female relatives (Mitchell, 1972).

TABLE 1
FOR WHOM DO CONSUMERS
PURCHASE FLOWERS?

For Whom are the Flowers?	Female Consumer	Male Consumer
Wife	. . .	45%
Husband	5%	. . .
Mother	14%	8%
Friend	27%	21%
Yourself/Your home	25%	7%
Other Female Relative	25%	14%
Other	4%	5%

Adapted from: Mitchell, H. 1973. A complete overview of the future of the retail flower industry. Teleflora, El Segundo, California.

When do Consumers Purchase Flowers?

Occasions.

In 1967, 27 percent of the value of all United States commercial floriculture and related products were sold for funerals and memorials, 23 percent for garden use, 12 percent for home use, 10 percent for special occasions, 7 percent for presents to the sick, and 2 percent for weddings (U.S. Dept. of Agr., 1969). Demby (1973) reported 55 percent of the flower purchases made in 1972 were for private and public special events.

Future flower sales potential appears good for all markets, except the sympathy market. The sympathy flower market declined between 1958 and 1973, and is expected to continue to decline in the future. However, get well flower sales are increasing. Hospital administrators reported that the number of get well flowers sent to patients increased by 20 to 30 percent each year from 1963 to 1973. This growth in the get well flower market is predicted to continue until 1983. The traditional holiday flower market was also reported to be growing quite substantially. Mother's Day sales are growing most rapidly. About a 1.5 percent growth rate per year is anticipated in the wedding flower market from 1973 to 1983, with a trend for more medium-sized weddings expected. Everyday special occasions, such as birthdays and anniversaries, are also seen as a high growth market (Mitchell, 1973).

Seasonability.

The sales of cut flowers and potted plants fluctuate seasonally. Total flower sales are lowest from July to September (U.S. Dept. of Agr., 1969; Kiplinger and Sherman, 1962). This may be due to the increased availability of home grown flowers. Highest percent total sales occurs in April and May reflecting special purchases made for Mother's Day, Memorial Day, and outdoor gardens (U.S. Dept. of Agr., 1969). Sullivan and Carpenter (1969) found neither funeral, nor hospital, flower sales contributed significantly to this fluctuation.

However, wedding and holiday flower sales do contribute to the seasonal fluctuation. In addition, they suggested that the current trend toward reorganizing the florists' merchandising structure, to emphasize untraditional floral sales, has only aggravated these fluctuations.

Frequency of Floral Purchase.

Sixty percent of the public buy at least one floral product a year. Fifteen percent of the public buy floral products one or two times a year, and 22 percent buy floral products three to five times a year. Finally, 22 percent buy floral products six to seven times a year (Demby, 1973).

Consumer frequency of floral purchase is related to the consumer's reason for purchase. If consumers primarily purchase flowers for special occasions, they are apt to buy flowers from three to five times a year. On the other hand, if they purchase flowers for both special occasions and for everyday occasions, they are apt to buy flowers six or seven times a year (Demby, 1973).

Where do Consumers Purchase Flowers?

The Shop.

As demonstrated in Table 2, one major difference between heavy and light floral purchases is that a larger percentage of heavy purchasers, than light purchasers, have bought flowers at one time in their lives at a store other than a florist (Demby, 1973).

TABLE 2
WHERE DO CONSUMERS
PURCHASE FLOWERS?

Place of Purchase	Total	Heavy Purchasers	Light Purchasers
Florist	93% ^a	95% ^a	90% ^a
Nursery/Greenhouse	42%	56%	31%
Outdoor Stand/Vendor	39%	53%	21%
Supermarket	38%	50%	28%
Department Stores	11%	17%	9%
Variety Stores	8%	11%	4%
Local Grocery	7%	11%	5%

Adapted from: Demby, E. 1973. A psychographic study of the market for flowers. American Florists Marketing Council, Alexandria, Virginia.

^aThe totals do not equal 100% because many of the interviews had multiple responses.

Seventy-five percent of the flower buying public patronize both a traditional florist and untraditional retail flower stores. The remaining 25 percent buy only at untraditional outlets. Sixty-six percent of the flower buying public have a regular place to buy flowers. Fifty-three percent of the consumers rely totally on a traditional florist (Mitchell, 1973).

The location of a flower shop helps to determine who are its patrons. Sixty-one percent of the floral consumers purchased flowers in stores near their homes. Fourteen percent purchased flowers near their place of work. Only 7 percent purchased flowers out of town, and 18 percent purchased flowers in other

locations (Mitchell, 1973).

Consumers who regularly buy flowers at traditional outlets are primarily interested in the price and quality of the flowers, while those who buy at a traditional florist are primarily interested in the service they receive in the shop. Table 3 illustrates other differences between the floral shop preferences of regular patrons of untraditional floral outlets, and those of regular patrons of traditional floral outlets (Demby, 1973).

TABLE 3
WHAT DO CONSUMERS LIKE
ABOUT THEIR REGULAR
FLOWER STORES?

Regularly Shop at a Traditional Florist	Regularly Shop at an Untraditional Floral Outlet
1. Service is good	1. Reasonable prices
2. People are helpful/make suggestions	2. Flowers are fresh
3. Flowers are fresh	3. Service is good
4. Arrangements are beauti- ful	4. Large variety and selec- tion
5. Large variety and selec-	5. People are helpful/make suggestions
6. Reasonable prices	6. Closest/convenient
7. Closest/convenient	7. Like the people/know them
8. Like the people/know them	8. Arrangements are beauti- ful

Adapted from: Demby, E. 1973. A psychographic study of the market for flowers. American Florists Marketing Council, Alexandria, Virginia.

The Developing Mass Market Trade.

Recently there has been considerable interest in the mass marketing of floral items. Growers favor mass marketing as one possible means to increase flower demand. However, 64 percent of the traditional florists fear that mass marketing of floral items might detract from their business (Bunkand and Hampton, 1953). Some florist groups have promoted legislation which would prohibit the sale of flowers in places other than conventional flower shops (Trotter, 1955). This fear seems to be unfounded since Hampton (1955) found that sales in traditional florist shops are not affected by sales of flowers in nearby untraditional florist shops. Gradually, the industry as a whole is becoming aware of a place in the market for untraditional floral outlets.

There are several advantages to selling floral products in a large grocery supermarket. Brunk and Hampton (1953) noted that grocery supermarkets had a steady, high traffic business. A large West Coast food chain estimated that only 7 percent of the consumers who purchased food weekly in this chain also purchased floral items weekly. To successfully market floral items in a supermarket, they concluded a supermarket should have a gross annual sales of between four to five million dollars (Daykin, 1972).

Campbell and Kress (1972) found that most supermarket managers are satisfied with the floral sales in their store. They found potted plants marketed by supermarkets more often

than cut flowers, because they are less fragile, longer lasting, and have a larger unit profit. Sixty-five percent, of the nearly 8,000 store managers questioned, said they planned to continue selling flowers at their present rate. Twenty-three percent were planning to significantly increase their floral items, and 10 percent were planning to develop a special section in their store for floral items.

Advertising.

Although florists frequently use promotional materials in their stores, very little exterior promotion has been done in the past. In a recent study 58 percent of the florists surveyed thought promotional materials in their store increased sales. However, among retail florists there was little agreement as to whether exterior promotional programs yielded returns commensurate with costs (U.S. Dept. of Agr., 1969).

Gatty (1961) suggested the instrumentation of a youth education program. He contended that sales could be increased, by the use of consumer education programs that were designed to inform the consumer about the use and care of flowers, instilling in the consumer a desire for flowers. This program would be similar to the activities of the American Dairy Council's use of school programs to teach students the place of dairy products in the diet.

The annual advertising expenditures of Rhode Island Retail Florists were studied by Bartner and Brewer (1956). They

found that donations accounted for more than half of the average total florist's advertising budget in 1956, and were used by almost all Rhode Island florists. Although there are no statistics on the distribution of the florists' annual advertising expenditures in the 70's, it is evident that florists are spending a larger percentage of their advertising dollar on newspaper, radio, and television advertising.

W. R. Knight indicated that advertising alone was not the key to sales expansion (1952). He found no relationship between retail florists' advertising expenditures and the growth rate of their shops in 1950. In fact, he concurred with Gartner and Brewer's finding (1956) that donations are not an effective way for florists to advertise.

More recently, trade associations have started advertising. This may prove to be successful since funding for large scale advertising is more likely to be obtained by a trade association than by a florist. However, since trade associations must advertise for a multitude of florists, the nature of the advertisement must be general.

Dewey (1963) found florists lacked faith in local florist cooperative promotions in the early 60's. But, since that time there has been a great deal of cooperative advertising through the local Allieds and through American Florists Marketing Council.

Packaging.

Early attempts at packaging flowers were made at Ohio State University (Early; Hague, 1947). These boxes, with cellophane windows, were not widely accepted by florists. Many more studies concerned with other prepackaging techniques have been conducted. Recent studies have emphasized packaging for mass marketing.

Several researchers have attempted to perfect packaging methods. Dewerth and Sorenson (1956) found that, generally, smaller pots and shorter stems are preferable for convenient packaging. It was suggested that potted plant items should not be over 15 inches high, and that cut flowers should not have stems over 15 inches in length. Brunk and Hampton (1953) found that consumers preferred roses boxed in units of one dozen. Hampton and Kupka (1955) introduced a wax treated paperboard tray, or box, with a cellophane overwrap. This type of packaging had the advantage that it could be stacked for display without bruising the flowers. They found that increased rose sales covered the added price of rose packaging. Carnations sold better in plain cellophane, rather than display boxes. Pompoms sold equally well in cellophane, or boxes. Gatty and Woff (1961) designed an unrefrigerated display rack to hold either packaged cut flowers, or potted plants. The packages, which were designed to go with the display rack, had Oasis at the bottom. From a preliminary sales experiment it was concluded that even a

small grower could properly service local supermarket displays.

The "aqua-pak" has drawn considerable attention. It is made of a large double waxed cardboard cup, with a water absorbent medium and a cellophane overwrap. Burrell (1957) tested the homeowner's response to the "aqua-pak" and found it to be very favorable. Further studies with similar types of packaging have been conducted by Jensen et al. (1974) at Rutgers.

What Kind of Flowers do Consumers Buy?

Type of Flower.

From 1949 to 1970 the cut flower market declined from 62 to 49 percent of the total value of the floriculture crops. However, the flowering potted plant market increased from 19 to 33 percent during the same period of time. In 1970, 43 percent of the total value of the floriculture crops was accounted for by cut roses, carnations, and chrysanthemums. The seven most valuable floriculture crops in 1970, from most to least valuable, were: cut chrysanthemums, cut roses, cut carnations, potted chrysanthemums, cut gladioli, potted poinsettias and potted azaleas (Fossum, 1973).

Arranged Cut Flowers, Bunches of Cut Flowers, or Flowering Potted Plants.

Demby (1973) tabulated the frequency at which consumers purchase arranged cut flowers, bunches of cut flowers, and flowering potted plants. He found 35 percent purchased arrangements of

cut flowers already in a vase, 23 percent purchased a bunch of cut flowers, and 17 percent of the purchases were a bouquet, or box, of flowers. According to Demby (1973) only 15 percent of the purchases were flowering plants. However, in a study of four Ohio supermarkets, Kiplinger and Sherman (1962) reported that potted plants accounted for 83.5 percent of the units sold, while cut flowers accounted for 16.5 percent of the units sold. Differences between the Demby (1973) statistics, and Kiplinger and Sherman's (1962) statistics, can be attributed to the fact that Demby got a larger percentage of his information from traditional florist patrons than Kiplinger. The Demby report (1973) found consumers tend to buy arranged flowers, already in a vase, for special occasions, when they buy at a florist. Consumers tended to buy bunches of cut flowers for other occasions.

Consumer Preferences for Specific Types of Flowers.

Several studies have been done on consumer preferences for specific floricultural crops. Sherman et al. (1956) found that participants in an Ohio home panel initially liked roses slightly more than carnations, and a great deal more than chrysanthemums. However, after five days of home trial, the order of preference was: chrysanthemums, carnations, and roses. This change seemed to be due to the longer lasting qualities of the chrysanthemum and carnation.

In this study, consumers were found to prefer red roses, red carnations, and yellow chrysanthemums. It is possible that color preferences may have been influenced by the color of the flowers received by the housewives to test at home.

Coleman et al. (1968) found consumers preferred orange and yellow roses over pink and red roses. In a study on cattleya orchids, Coleman et al. (1967) found that nearly 60 percent of the consumers preferred purple colored orchids to white, orange, or white/purple orchids. In addition, she found consumers preferred medium sized poinsettias with foliage extended well over the sides of the pot (Coleman et al., 1967).

Zehner (1968) evaluated Michigan consumer attitudes toward tulip color. She found 28 percent of the consumers preferred red tulips, 22 percent preferred pink tulips and 13 percent preferred yellow tulips. Also, 75 percent of the participants liked tulips with full tunics better than tulips with broken tunics.

Consumer Preferences for Potted Chrysanthemums.

Potted chrysanthemums have been the subject of several consumer preference studies. Van Eman (1974) examined the sales potential of potted chrysanthemums in supermarkets. He found that the best pot size mix was 65 percent four inch pots, 20 percent five inch pots and 15 percent six inch pots. Yellow was the color preferred by most consumers, followed by bronze

and white.

Walters (1972) used a "home cooperators panel" to determine the most desirable stage of chrysanthemum flower maturity at the time of sales. "Home cooperators believed that flowers slightly less than full size, with centers not yet opened, were the most long lasting.

Mattson (1974) tested chrysanthemum variety preferences in a Kansas State University class. Given the choice of a decorative, daisy, or incurved mum; female students preferred the daisy, and male students preferred the incurved.

Price.

Pricing studies have shown flower prices to be slightly inelastic.² Hampton and Kupka (1955) examined the price elasticity of roses, carnations, and chrysanthemums in mass marketing retail outlets. They varied the price of roses and carnations by 20 cents per week for five weeks, resulting in a price range from 99 cents to \$1.79 per dozen. The price of pompom chrysanthemums was varied by ten cents a week resulting in a price range of 39 cents to 79 cents per bunch. They found that the overall price elasticity of demand was $-.8$. The slightly inelastic nature of the coefficient indicated that other factors such as display, packaging, and type and color of flowers are fundamental in

²"The price elasticity of demand is defined to be the percentage change in quantity resulting in a one percent change in price . . . The demand for a commodity is said to be price elastic if price elasticity of demand is more than one." The demand for a commodity is said to be price inelastic if the elasticity of demand is less than one." Mansfield, E. Microeconomics: Theory and Applications, W. W. Norton & Comp. Inc., New York, 1970, pp.60-61.

influencing the consumer's decision to purchase floral items.

Furbay (1960) studied price variance on 3-1/2, 4, 5 and 6 inch potted chrysanthemums. He found that there was an inelastic demand for 3-1/2 inch potted chrysanthemums when the price was changed from 55 to 50 cents, or from 45 to 40 cents. However, there was a strong elastic demand when the price was changed from 50 to 45 cents. He also reported that one-third of weekly sales occurred in the first half of the week and two-thirds occurred in the last half of the week.

Zawadzki, Larmie and Owens (1960) studied the price elasticity of roses and carnations in several eastern supermarkets. They reported that within the price range of 79 to 99 cents there was a slightly inelastic coefficient of -0.8.

Baker (1961) found no cross elasticity of demand for four inch and five inch potted chrysanthemums. They neither substitute for each other, nor compliment one another.

Reduction of floral prices, and a corresponding reduction of services, does seem to meet with customer appeal. Oppenfeld et al. (1957) reported that floral consumers in Grand Rapids, Michigan, responded positively to lower prices corresponding with fewer services. He found that short-stemmed flowers and smaller plants sold well at lower prices.

Goeppner (1951) suggested that the sales of short-stemmed flowers, from street stands, substantially augments the average level of retail sales in San Francisco.

METHODS AND MATERIALS

The Consumer Panel Opinionnaire.

Consumer preference panels are a coordinated statewide activity of the Consumer Marketing Program of Michigan State University's Cooperative Extension Service. These panels were organized by Ms. Mary Zehner, of Michigan State University's Department of Agricultural Economics, in conjunction with district consumer marketing agents. A total of thirty-six panel sessions were held in six cities in central Michigan. The panelists met in the community rooms of shopping centers, and in other public buildings. Several products, in addition to potted chrysanthemums, were tested through the 1974 consumer panels.

Each of the panelists was given an opinionnaire designed to determine their preferences for chrysanthemums types, potted mum buying behavior, and socioeconomic background. Care was taken to prepare the opinionnaire in a form that could be easily understood and quickly answered. Further precautions were taken against influencing the panelist's responses by identifying the various mum types involved in the opinionnaire with a symbol, which was neither numerical nor alphabetical. Due to time limitations, the section of the opinionnaire to be filled out while the panelists viewed the chrysanthemum display was limited to a page

and a half in length. The section of the opinionnaire pertaining to customer buying behavior was limited to a page in length (Appendix A. Consumer Panel Opinionnaire).

The potted chrysanthemum display was set up before each panel began. From a total of 10 to 20 mums, the best pot of each different type of mum was selected for display. Spent blossoms and browning leaves were removed. The pots were arranged in a row down the center of the table in the following order: incurved mum, daisy mum, spider mum, decorative mum, and feather decorative mum.

The following varieties of potted mums were displayed during the panels: Golden Mefo, Bright Golden Anne, Golden Crystal, D-48 Yellow Spider, Yellow Bonnie Jean; and Improved Bonnie Jean replaced Yellow Bonnie Jean during one panel session. These varieties are pictured in Table 4. There were three major factors involved in the selection of the varieties to be used. These factors were: 1) the varieties had to be representative of a general type of chrysanthemum, 2) they had to be golden yellow in color, and 3) they had to be in bloom during the spring panel session. All the mum varieties were the same color to avoid any color variety consumer preference interactions. The plants were growing in azalea pots with gold foil wrapped around them. The Golden Mefo, Bright Golden Anne, and D-48 Yellow Spider had been disbudded. The terminal buds of the Yellow Bonnie Jean and Improved Bonnie Jean were removed. All the buds on the Golden

TABLE 4

ILLUSTRATIONS OF THE POTTED CHRYSANTHEMUM VARIETIES
DISPLAYED DURING THE CONSUMER PANELS

Golden Mefo
(Incurved)

Bright Golden Anne
(Decorative)

Yellow Bonnie Jean
(Daisy)

D-48 Yellow Spider
(Spider)

Golden Crystal
(Feather Decorative)

Crystal had been allowed to develop.

At the beginning of each panel, the coordinator reviewed the procedures to be followed by the panelists, and explained the opinionnaire. Next, the panelists were instructed to view the different product displays, and complete the section of the opinionnaire pertaining to each display immediately after viewing it. No talking was permitted during the session. Up to four supervisors were present during each panel session. When the panelists had finished viewing the products, the opinionnaires were collected. Then the purpose of each of the studies being conducted through the consumer panel was explained, and some of the early findings of the different studies were discussed. Finally, the take-home product was passed out.

Consumer Group Interviews.

A qualitative follow-up study was conducted to investigate consumer ideas and feelings about chrysanthemums. The objective was to correlate the ideas and feelings of the consumers interviewed with those of the consumer panelists who completed the opinionnaire. Due to the necessary brevity of the consumer panel opinionnaire, quantitative data had been gathered prior to the beginning of the study. Through this follow-up study, further insights were gained into the reasons behind the panelists' responses to the opinionnaire.

Five group interviews were conducted. From three to twelve

women participated in each group interview. Participants in the first group interviewed were selected randomly from the telephone book. However, participants in all the following groups were contacted through local clubs and organizations. Members of the organizations were encouraged to urge their neighbors and friends, who were not members, to attend a group interview. No remittance was offered to participants. The interviews were held in the participant's homes, and in a conference room in Eppley Center of Michigan State University. The location of each interview was dependent on its convenience to the interviewees. A relaxed informal atmosphere was maintained during the interviews. All interviews were taped to avoid taking notes.

The interviewees were asked a series of directed questions. These questions outlined the nature of the qualitative data gathered. Although prior to the session, the interviewer had formulated a series of specific questions, during the interview these questions were frequently rephrased. No attempt was made to get all of the interviewees to answer all the questions. Verbal interaction between the interviewees was encouraged. At all times the interviewer attempted not to imply with words, or facial expressions, any personal partiality to certain ideas or feelings. If the interviewees mentioned subjects that the interviewer had not previously considered, they were encouraged to expound on their feelings and ideas (Appendix B, Directive Questions for the Consumer Group Interviews).

Grower and Retailer
Opinionnaire.

The purpose of the grower and retailer opinionnaire was to evaluate the differences between the potted mum preferences the growers and retailers expected the consumers to demonstrate, and the potted mum preferences the consumers actually demonstrated. This opinionnaire was distributed to twenty-eight potted mum grower and retailers during two educational events held for the benefit of Michigan floricultural growers and Michigan florists. The purpose of the opinionnaire was briefly discussed prior to distributing it. The types of potted chrysanthemums that have been marketed are easily discovered by examining past sales records. However, the underlying criteria for the growers and retailers selection of the mum type marketed is more elusive. Since this study was viewed as a secondary, follow-up study, the information gathered was not of a quantitative nature. Despite this fact, it is felt that this study might give some indication of the divergence of opinion between growers and retailers of mums, and purchasers of mums (Appendix C, Opinionnaire For Pot Mum Growers And Retailers).

RESULTS AND DISCUSSION

The Consumer Panel Opinionnaire

Over 2,000 consumers participated in the 1974 Michigan State University Consumer Panel. Only 102 of the participants were men. Panelists tended to be between the ages of thirty and fifty-nine, and came from slightly higher than average income and educational backgrounds. In addition, a smaller percentage of the female panelist heads of households were full-time employees, and a larger percentage were part-time employees, compared to women in the United States as a whole (Appendix D, Summary Tables Consumer Panel Series, Spring, 1974).

The information gathered from the consumer opinionnaire was evaluated through a series of chi square tests. The results of these chi square tests are summarized in the following discussion. All of the interrelationships mentioned in this discussion are significant at .05 or less.

The Mum Types Panelists Liked Best and the Mum Types Panelists Liked Least.

As shown in Table 5, thirty-two percent of the panelists liked the incurved mum best. The daisy, spider and decorative mums were liked best by almost equal numbers of panelists. Only four percent of the panelists liked the feather decorative mum best, and over fifty percent of the panelists liked it least.

TABLE 5
THE PERCENTAGE OF THE PANELISTS
WHO LIKE EACH OF THE FIVE MUM
TYPES BEST AND LEAST

Mum Type	Percent of Panelists Who Liked each of the Mum Types Best	Percent of Panelists Who Liked each of the Mum Types Best
Incurved	32%	7%
Spider	24%	15%
Decorative	20%	6%
Daisy	20%	17%
Feather		
Decorative	4%	55%

There are several significant interrelationships between the type of mum panelists liked best, and the type of mum the panelists liked least. It is probable that panelist taste preference is related to mental images, based on subconscious associations, of the flowers. For example, panelists who liked the incurved mum best were not apt to like the decorative mum least, and panelists who liked the decorative mum best were not apt to like the incurved mum least (Appendix E, Chi Square Consumer Panel Opinionnaire, Table A1). Since these two mum types were the most readily recognized as mums by the panelists (See p. 29), perhaps this relationship represents a mutual desire of these two groups of panelists for a "normal" looking potted mum. Secondly, panelists who liked either the spider mum or the feather decorative mum best were more apt to like the daisy mum least (Appendix E, Chi Squares From Consumer Panel Opinionnaire, Table A1). From the group interviews, it seems

that consumers who liked the feather decorative, or the spider mum, thought of them as exotic or unusual. On the other hand, most consumers thought of the daisy mum as fresh and natural. These two floral images appear to be contradictory. Finally, panelists who liked the feather decorative mum best were not apt to like the spider mum least (Appendix D, Chi Squares From Consumer Panel Opinionnaire, Table A1). However, panelists who liked the spider mum best were as apt as the average panelist to like the feather decorative mum least. The fact that the panelists who preferred the feather decorative mum did not dislike the spider mum is understandable since both of these mum types would tend to project similar mental images. The taste motivating factors behind the panelists who preferred the spider mum, yet disliked the feather decorative mum, are less apparent.

The Percentage of Panelists Who
Recognized each of the Five Mum
Types as Mums.

Forty-four percent of the panelists recognized all the mum types as mums. As Table 6 indicates, panelists who did not recognize some of the mum types as mums were most apt not to recognize the daisy mums as mums. This was probably because the daisy mum is the mum type most recently marketed. It is surprising that more panelists recognized the incurved mum than the decorative mum, since the decorative mum commands the majority of the potted chrysanthemum market. Panelists who liked the incurved or daisy mum best were less likely to recognize all the mum types as mums. In addition, panelists who liked the spider or feather decorative

mum best were more likely to recognize the spider mum as a mum, and those who liked the decorative or feather decorative mum best were less likely to recognize the decorative mum as a mum (Appendix E, Chi Squares From Consumer Panel Opinionnaire, Tables A2-A5).

TABLE 6
THE PERCENTAGE OF THE PANELISTS WHO
RECOGNIZED EACH OF THE FIVE
MUM TYPES AS MUMS

Mum Type	Percent of the Panelists Who Recognized each of the Mum Types
Incurved	91%
Decorative	79%
Spider	71%
Feather Decorative	67%
Daisy	49%

The Percentage of the Panelists
Who would Buy each of the Five
Mum Types.

From Table 7, it can be observed that most of the panelists would buy the incurved mum, and very few of the panelists would buy the feather decorative mum. As might be expected, panelists had a strong tendency to buy the mum types they liked best. In addition, panelists who liked the incurved mum best were also very likely to buy the decorative mum, and panelists who liked the decorative mum best were also very likely to buy the incurved mum (Appendix E, Chi Squares From Consumer Panel Opinionnaire, Tables A6-A10). As previously mentioned, this mutual acceptance of their

favorite mum types may be due to desire in both groups of panelists for a "normal" appearing mum.

TABLE 7
THE PERCENTAGE OF THE PANELISTS
WHO WOULD BUY EACH OF THE
FIVE MUM TYPES

Mum Type	Percent of the Panelists Who would Buy each of the Mum Types
Incurved	74% ^a
Decorative	64%
Spider	56%
Daisy	52%
Feather Decorative	21%

^aThe percentages listed above do not total 100 percent because most panelists gave multiple responses to this question.

The Percentage of the Panelists
Who would Pay Most or Least for
Each of the Five Mum Types.

Thirty-nine percent of the panelists would pay most for the incurved mum. But, as Table 8 illustrates, only five percent of the panelists would pay the most for the feather decorative mum. Panelists were likely to pay the most for the mum type they liked best. Furthermore, panelists who liked the incurved mum were not apt to pay the least for the decorative mum, while panelists who liked the decorative mum best were not apt to pay the least for the incurved mum. Also, panelists who liked the feather decorative mum best were not apt to pay least for the spider mum, and panelists who liked the spider mum best were not apt to pay least for the

feather decorative mum (Appendix E, Chi Squares From Consumer Panel Opinionnaire, Tables A11-A15). A possible cause for these inter-relationships has been discussed previously (p. 27).

TABLE 8
THE PERCENTAGE OF THE PANELISTS WHO WOULD
PAY THE MOST FOR EACH OF THE
FIVE MUM TYPES

Mum Type	Percent of the Panelists Who would Pay the Most for each Mum
Incurved	39%
Spider	28%
Decorative	15%
Daisy	13%
Feather Decorative	5%

The Relative Amount of Care Panelists
Thought each of the Five Mum Types
Required.

As Table 9 illustrates, fifty-one percent of the panelists thought all the mum types required equal amounts of care. If the panelists did not think all the mum types required equal amounts of care, they were most likely to think the spider mum required the most care and the decorative mum required the least care. Perhaps, the panelists' image of spider mum as exotic contributed to their belief that it would require the most care. In the same respect, they may have thought the decorative mum would require the least care because it is the most common mum type. There was a slight tendency for panelists who liked the spider and incurved mum to think the mum types they liked best required the least care (Appendix

E, Chi Squares From Consumer Panel Opinionnaire, Tables A16-A17). This belief may be part of the reason they preferred the spider or incurved mum, or it may be a defensive reaction to their preferred mum type.

TABLE 9
THE PERCENTAGE OF PANELISTS WHO
THOUGHT EACH OF THE FIVE MUM
TYPES REQUIRED MOST OR
LEAST CARE

Mum Type	Percent of Panelists Who Thought each of the Mum Types Required Least Care	Percent of Panelists Who Thought each of the Mum Types Required Least Care
Decorative	21%	2%
Daisy	12%	8%
Incurved	10%	12%
Feather		
Decorative	3%	8%
Spider	3%	19%

Fifty-one percent of the panelists thought all the mum types required equal amounts of care.

Number of Times Panelists
Bought Flowers in the Year
Prior to the Panels.

Ninety-one percent of the panelists bought flowers at least once in the year prior to the panels. As can be observed in Table 10, forty percent of the panelists bought flowers from three to five times in the previous year. Panelists who liked the spider or feather decorative mum best were more likely to have bought flowers three or more times. Also, panelists who liked the daisy or incurved mum best were more likely to have bought flowers two

or less times (Appendix E, Chi Squares From Consumer Panel Opinionnaire, Table A18).

TABLE 10
NUMBER OF TIMES PANELISTS
PURCHASED FLOWERS IN
THE YEAR PRIOR TO
THE PANELS

Number of Times Flowers were Purchased	Percent of the Panelists Who Purchased Flowers a Number of Times
Never	9%
Once or twice	28%
Three to five times	40%
Six or more times	23%

Number of Times Panelists
Bought Potted Chrysan-
themums in the Year
Prior to the Panels.

From Table 11, it may be observed that 58 percent of the panelists bought at least one potted mum in the year prior to the panels. Panelists who liked the spider or feather decorative mum best were more apt to buy potted mums (Appendix E, Chi Squares From Consumer Panel Opinionnaire, Table A19).

TABLE 11
NUMBER OF TIMES PANELISTS PURCHASED
POTTED CHRYSANTHEMUMS IN THE
YEAR PRIOR TO THE PANELS

Number of Times Potted Mums Were Purchased	Percent of the Panelists Who Purchased Potted Mums a Number of Times
Never	40%
Once or twice	40%
Three or more times	18%

Occasions for Which
Panelists Would Buy
Potted Chrysanthemums.

Most of the panelists who bought potted mums in the year prior to the panels would buy them for a holiday. The panelists had a strong tendency to buy the mum type they liked best for this occasion (Appendix E, Chi Squares From Consumer Panel Opinionnaire, Table A20-A24). Probably they simply wanted the mum type they liked the best in their home. As may be observed in Table 12, forty-one percent of the panelists who bought potted mums in the year prior to the panel, would buy them for a funeral or memorial, and about the same percent of these panelists would buy potted mums for a gift to a sick person. Only the panelists who liked the decorative mum best preferred to buy the mum type they liked best for a funeral or memorial and only panelists who liked the incurved mum best preferred to buy the mum type they liked best for a gift to a sick person (Appendix E, Chi Squares From Consumer Panel Opinionnaire, Tables A25-A26). There were no other

relationships between the type of mum the panelists liked best and whether they would buy any particular mum type for either a funeral or memorial, or a gift to a sick person. Perhaps, panelists did not care what type mum they bought for these occasions since the mum was not going to be in their own home. A larger percentage of the panelists may buy potted mums for a funeral or memorial than indicated in Table 11, since frequently funeral or memorial flowers are selected by the florist.

Nineteen percent of those who bought potted mums in the year prior to the panel would buy them for no particular reason, and a slightly smaller percent would buy them for everyday use. The panelists who liked the spider or daisy mum best were more likely to buy the mum they liked best for no particular reason (Appendix E, Chi Squares From Consumer Panel Opinionnaire, Tables A27-A29). The informal image projected by the daisy mum makes it particularly suitable for such casual buying.

Panelists who liked the spider and feather decorative mums best were more apt to buy the mum type they liked best for everyday use (Appendix E, Chi Squares From Consumer Panel Opinionnaire, Tables A30-A32). Since these panelists tended to buy more potted mums, this is consistent with Demby's (1973) findings that frequent flower buyers are generally more likely to buy flowers for non-occasions than non-frequent flower buyers.

TABLE 12
OCCASIONS FOR WHICH PANELISTS
WOULD BUY POTTED
MUMS

Occasions	Percent of the Panelists Who would Buy Potted Mums for an Oc- casion
Holiday	65% ^a
Funeral or Memorial	41%
Gift to a Sick Person	38%
No particular reason	19%
Everyday use	17%

^aThe percentages do not total 100 percent because many panelists indicated they would buy potted mums for more than one reason.

Panelists' Usual Price Range
For Potted Mums.

Fifty-six percent of the panelists who bought potted mums in the year prior to the panels usually paid from \$4.00 to \$8.00 for them; while forty-one percent usually paid under \$4.00 for potted mums. Panelists who liked the daisy or feather decorative mum best were less likely to pay over \$4.00 for potted mums (Appendix E, Chi Squares From Consumer Panel Opinionnaire, Table A33).

Who Decides what Type
Of Flowers to Buy?

Over fifty percent of the panelists who bought potted mums in the year prior to the panels indicated the female head of the household decided what type of flowers to buy. Another fifteen

percent indicated that they called the florist and let him decide. Seven percent of the panelists indicated the husband alone decided, and four percent indicated the adults and children together decided. These results might be altered if male and female panelists had been equally represented.

Where Panelists
Buy Potted
Mums.

As indicated in Table 13, forty-six percent of the panelists who bought potted mums in the year prior to the panels usually bought potted mums at a florist. There were no relationships between the type of mums panelists liked best and type of store(s) in which they bought mums, except in the case of the farmers' market. Panelists who liked the daisy mum best were slightly more likely to buy potted mums at the farmers' market (Appendix E, Chi Squares From Consumer Panel Opinionnaire, Table A34). This may be related to the fact that their price range for potted mums tends to be lower than the other panelists'.

Secondly, panelists who liked the spider or feather decorative mum best were slightly more apt to buy potted mums at a farmers' market as a second choice.

TABLE 13

PERCENTAGE OF THE POPULATION WHO
BUY IN A PARTICULAR
STORE TYPE

	Usually	Frequently	Infrequently
Florists	46% ^a	15% ^a	39% ^a
Groceries or Discounts	27%	15%	37%
Retail Garden Centers	15%	15%	70%
Farmers' Markets	10%	11%	69%

^aPercents do not total 100 because panelists had multiple responses, or not all the panelists answered the question.

Family Income of the Panelists
As it Related to the Mum Type
Panelists Liked Best.

Family income may be related to the mum types the panelists liked best. For example, the panelists who liked the spider mum best were apt to have a family income of \$20,000 or more, while panelists who liked the incurved or decorative mum best were apt to have a family income of \$14,999 or less, and there was a tendency for a panelist who liked the daisy mum to have a family income of \$14,999 or less (Appendix E, Chi Squares From Consumer Panel Opinionnaire, Table A35).

Size of the Panelists'
Families as it Related
To the Mum Type Panelists
Liked Best.

Panelists who liked the daisy mum were most apt to have four members in their family. For all the other panelists, there was most apt to be only one other member of their family (Appendix E, Chi Squares From Consumer Panel Opinionnaire, Table A36).

The Ages of the Female Heads of
The Panelists' Families as it
Related to the Mum Type the
Panelists Liked Best.

The ages of the female heads of the panelists' families were related to the mum types of the panelists liked best. The female heads of the panelists' families who liked the daisy or decorative mum best were likely to be younger than forty-five; whereas those of the panelists who liked the incurved or spider mum best were apt to be older than forty-four, and those of the panelists who liked the feather decorative mum were apt to be sixty years old or older (Appendix E, Chi Squares From Consumer Panel Opinionnaire, Table A37).

The Panelists' Families' Life Cycle
As it Relates to the Mum Type the
Panelists Liked Best.

The number of the panelists' family members at different age levels may be related to the panelists' mum preferences. For example, panelists who liked daisy mums were likely to have two children younger than thirteen, and two adults nineteen to thirty-nine years old in their family.

the decorative mum, feather decorative mum, or incurved mum, were apt to have any children or teenagers in their family. In addition, those who liked the decorative or incurved mum best were likely to have two family members, forty years old or older, while those who liked the feather decorative mum best were likely to have two family members less than forty years of age (Appendix E, Chi Squares From Consumer Panel Opinionnaire, Tables A38-A41).

Renormalization of the Sex of the
Panelists as it Relates to
Several Variables.

Since only about one in twenty of the approximately 2,000 panelists were mem, it was desirable to renormalize the sex of the panelists as it related to several other variables. Table 14 shows the original data from the chi square test of the inter-relationships between the sex of the panelists and the mum type the panelists liked best.

TABLE 14

A CHI SQUARE TEST OF THE INTER-
RELATIONSHIPS BETWEEN THE
SEX OF THE PANELISTS AND
THE MUM TYPE PANELISTS
LIKED BEST

		Mum Type Panelists Liked Best					
		Incurved/Daisy/Spider/Decorative/F.Decor./Total					
Sex of Panelist	Male	45	19	12	19	7	102
	Female	586	368	472	377	75	1878
Column Total		631	387	484	396	82	1980
		Percent of the Panelists Who Liked each Mum Type					
		31.9%	19.5%	24.4%	20.0%	4.1%	
Chi Square = 12.4		Significance = .05					

If the number of male panelists is set equal to the number of female panelists and the data is adjusted accordingly, then Table 15 shows the number of male and female panelists who would have liked each of the mum types. As may be observed in Table 15, the popularity of the incurved mum would increase, and the popularity of the spider mum would decrease.

TABLE 15
A RENORMALIZED TABLE OF THE SEX
OF THE PANELISTS COMPARED TO
THE MUM TYPE PANELISTS
LIKED BEST

Sex of Panelist		Mum Type Panelists Liked Best					Total
		Incurved	Daisy	Spider	Decorative	F.Decor.	
Male		438	184	116	184	68	990
Female		308	194	249	199	40	990
Column Total		746	378	365	383	108	1980
		Percent of the Panelists Who Liked each Mum Type					
		37.7%	19.1%	18.4%	19.3%	5.5%	

Since there were no male participants in the group interviews, it is difficult to understand their preferences for the different mum types. They may be more attracted to the incurved mum than the female panelists because of its "traditional" appeal. Or, as some of the female interviewees suggested, the male panelists may have thought of the incurved mum as a more masculine flower. It is interesting to note that the male panelists did not react negatively to the daisy mum, although this mum type was considered by female interviewees to be particularly feminine.

Table 16 reveals that renormalization causes a decrease in the total percent of panelists who would buy each of the mum types.

TABLE 16
A COMPARISON OF THE PERCENT OF MALE
AND FEMALE PANELISTS WHO
WOULD BUY EACH OF THE
MUM TYPES

Mum Types	Percent Females Who would Buy each of the Mum Types	Percent Males Who would Buy each of the Mum Types	Renormalized Percent Panelists Who would Buy each of the Mum Types
Incurved	74% ^a	69% ^a	72% ^a
Decorative	64%	52%	58%
Daisy	53%	45%	49%
Spider	58%	26%	41%
F. Decorative	21%	20%	20%

^aThe percents do not total 100 because some panelists indicated they would try more than one mum type.

A Comparison of the
Percent of Male and
Female Panelists Who
Would Pay Most for
Each Mum Type.

As indicated in Table 17, the percentage of the women who pay the most for each mum type does not equal the percent of the men who would pay the most for each type. Again, the men show a strong preference for the incurved mum and tend to dislike the spider.

TABLE 17
A COMPARISON OF THE PERCENT OF MALE AND
FEMALE PANELISTS WHO WOULD PAY
MOST FOR EACH OF THE MUM
TYPES

Mum Types	Percent of Females Who would Pay Most for each Mum Type	Percent of Males Who would Pay Most for each Mum Type
Incurved	30%	48%
Spider	30%	11%
Decorative	15%	18%
Daisy	13%	15%
F. Decorative	5%	8%

A Comparison of the Number of
Times Male and Female
Panelists Bought Potted Mums
In the Year Prior to the
Panels.

Although male panelists bought fewer potted mums than the female panelists, they represent an important market segment. From Table 18, it may be observed that 55 percent of the male panelists bought at least one potted mum, while 61 percent of the female panelists bought at least one potted mum, in the year prior to the panels. When the distribution of the sex of the panelists is re-normalized the percent of the total number of consumers who bought potted mums decreases.

TABLE 18

A COMPARISON OF THE NUMBER OF TIMES MALE
AND FEMALE PANELISTS BOUGHT POTTED
MUMS IN THE YEAR PRIOR TO
THE PANELS

Number of Times Potted Mums were Purchased	Percent of Population Who Purchased Potted Mums a Number of Times		
	Female	Male	Renormalization of the Sex of the Panelists
Never	39%	45%	42%
Once or Twice	40%	40%	40%
Three or More Times	21%	15%	18%

A Weighted Estimate of the Percent
Of Consumers Who would Pay Most
For each Mum Type.

As observed in Table 18, the percentage of women who would pay most for each of the mum types differs from the percentage of men who would pay most for each type. Since the women buy more potted mums than the men, the relative amount the women would pay for potted mums is more important than the relative amount men would pay for them. The estimate of the percentage of panelists who would pay most for each mum type includes weighting factors, derived from Table 19, which accounts for the different frequencies with which male and female consumers buy potted mums. These weighting factors were .54 for the female buyers, and .46 for male buyers. This estimate was derived from the following equation:

$$P_1 = FT_1 + MV$$

Where:

P_1 = the percent of consumers who would pay the most for mum type 1.

F = the weight for female buyers.

T_1 = the percent of female buyers who would pay most for mum type 1.

M = the weight for male buyers.

V_1 = the percent of male buyers who would pay most for mum type 1.

The estimate of the percentage of the consumers who would pay most for each mum type is:

42% would pay most for the incurved mum;

21% would pay most for the spider mum;

16% would pay most for the decorative mum;

14% would pay most for the daisy mum; and

7% would pay most for the feather decorative mum.

An Estimate of the Ideal Marketing Mix
The Incurved, Decorative, Spider and
Feather Decorative Mums from the Con-
sumers' Point of View.

An estimate of the ideal marketing mix may be derived from two basic sources: 1) the consumers' preferences for the different types; and 2) the consumers' willingness to buy the different mum types. The first estimate only includes the consumers' first choice of mum types they might buy. However, the second estimate includes all of the mum types the consumers might buy. These estimates must be weighted to emphasize womens' attitudes towards the different types of potted mums, since women buy more potted

mums than men. In addition, the first estimate should be weighted to account for the difference in the frequencies with which each of the five groups of panelists bought potted mums. In calculating the ideal marketing mix from the consumers' willingness to buy the different mum types, the following equation was used:

$$B_1 = (Fa_1) (Mb_1) \quad \text{eq. 1}$$

Where:

B_1 = the ideal percent of mum type 1.

F = the weight for the female panelists.

M = the weight for the male panelists.

a_1 = the womens' willingness to buy mum type A.

b_1 = the mens' willingness to buy mum type A.

From this equation the following estimate of the ideal marketing mix of the mum types was derived:

30 incurved mums;

24 decorative mums;

20 daisy mums;

17 spider mums;

9 feather decorative mums.

To calculate the estimate of ideal marketing mix from the consumers' preferences for the different mum types equation 2 was used:

$$L_1 = (Fg_1) (Md_1)/W_1 \quad \text{eq. 2}$$

Where:

L_1 = the ideal percent of mum type 1.

W_1 = the weight for the frequency with which the panelists who liked mum type 1 bought potted mums.

g_1 = the womens' preferences for mum type 1.

d_1 - the mens' preferences for mum type 1.

All other symbols as above.

This equation lead to a slightly different estimate of the ideal marketing mix, as stated below:

36 incurved mums;

21 spider mums;

20 decorative mums;

17 daisy mums;

6 feather decorative mums.

The Group Interviews

Five group interviews were conducted for approximately one hour each, with an average of five interviewees participating in each group. The statements made by the interviewees concerning their mental images of flowers, and specifically of potted mums were grouped according to the sentiments they expressed and then into subject headings (Appendix D, Results From Group Interviews). Although the number of times a subject was mentioned, as tabulated in Table 19, reflects the relative strength of the consumers' impressions of that subject, it is only a rough indication of the panelists' interests, since the interviewer introduced some of the subjects into the conversation.

As may be observed from Table 19, the interviewees had strong mental images of the seasonability, price and lasting qualities of flowers. They also had strong associations with

daisies and mum flower types.

TABLE 19
RELATIVE STRENGTH OF CONSUMERS'
ATTITUDES TOWARD SUBJECTS
DISCUSSED DURING THE
GROUP INTERVIEWS

Subject	Number of Times Discussed
General Positive Attitude Toward Flowers	8
General Negative Attitude Toward Flowers	9
Seasonability of Flowers	12
Price	17
Decorating with Plants and Flowers	9
Lasting Qualities of Flowers	12
Shape of Flowers	7
Smell of Flowers	4
Buying Flowers for Themselves	3
Buying Flowers for Someone Else	4
Receiving Flowers	9
Daisies	15
Mums	23
Incurved Mums	16
Daisy Mums	14
Decorative Mums	5
Spider Mums	13
Feather Decorative Mums	6

Consumers' Attitudes Toward Potted Mums in General.

Consumers have a generally favorable impression of potted mums as being long-lasting flowers. Buyers frequently associate them with the fall season, and treasure them as the last flower until spring. Perhaps, due to this association, buyers tend to favor the autumn colors for potted chrysanthemums.

There are two major reasons for consumer dissatisfaction with potted mums. First many buyers feel there is nothing special about potted mums. Or as one woman expressed it, "Everybody has mums." Secondly, buyers are often disappointed in the potted mums they purchase at the florists, because the mums won't over-winter in their gardens. This situation is aggravated by florists who thoughtlessly reassure consumers that the potted mums will over-winter.

Consumers' Attitudes Toward Different Mum Types.

None of the participants in the group interviews ever voluntarily mentioned any particular mum type. However, when asked about different mum types some consumers recalled the incurved mum and the spider mum. Even when the interviewees were shown pictures of the decorative mum, very few of them recognized it. It is possible that consumers have seen so much of the decorative mum that they have ceased to be aware of its distinguishing

characteristics.

Consumers' Attitudes Toward
The Incurved Mum.

This was the mum type most frequently mentioned by interviewees. Many strongly associate this mum type with high school football games. Some interviewees saw the incurved mum as a particularly masculine plant since it appeared heavier and stockier.

Consumers' Attitudes Toward
The Daisy Mum.

The interviewees' mental images of the daisy mum were similar to their images of the real daisy. They saw it as a spring and summer flower. Primarily, it was felt to be a feminine flower, appropriate for weddings, wedding showers, and baby showers. As with the real daisy, it connoted to them things which are fresh and simple. The daisy mum brought to mind visions of a young woman running through an open field, or cozy kitchens and young children.

Consumers' Attitudes Toward
The Spider Mum.

The spider mum primarily appeals to those who desire something exotic. Some of the interviewees recalled seeing it as a frequent motif in oriental art. However, some said it's petals remind them of little fingers, or the appendages of an anemone.

Consumers' Attitudes Toward The Feather Decorative Mum.

Most of the interviewees' associations with the feather decorative mum were negative. It reminded them of something which is shrivelled, torn, unhealthy, or dying. For those few interviewees it did appeal to, it evoked images similar to those prompted by the spider mum.

Consumers' Attitudes Toward The Decorative Mum.

Consumers are generally ambivalent toward the decorative mum. It is seen as an all-purpose flower. When pressed several interviewees mentioned summer and sunshine in association with this mum. However, very few buyers had strong negative or positive feelings toward this mum.

Grower and Retailer Opinionnaire

A total of twenty-eight participants completed the grower and retailer opinionnaire. Four were only mum growers, six were both growers and retailers and eighteen were only retailers. Due to the limited nature of this study's data, no statistical tests were conducted.

Buying Preferences that the Growers And Retailers Expected Consumers to Exhibit Compared to the Buying Preferences that the Panelists Exhibited.

As indicated in Table 15, there is little, if any, relationship between the mum types the growers and retailers thought the

consumers would like, and the mum types the panelists indicated they would like.

TABLE 20

POTTED MUM BUYING PREFERENCES THAT THE GROWERS
AND RETAILERS EXPECTED CONSUMERS TO
EXHIBIT COMPARED TO THE POTTED MUM
BUYING PREFERENCES THAT THE
PANELISTS EXHIBITED

Mum Type	Preferences that the Growers & Retailers Expected Consumers to Exhibit	Preferences that the Panelists Ex- hibited
Decorative	1	3
Daisy	2	4
Feather	3	5
Spider	4	2
Incurved	5	1

Scale: 1 indicates consumers liked it the best; 5 indicates consumers liked it the least.

From the growers and retailers' responses to the qualitative questions on the opinionnaire, it appears that this incongruity was largely due to the fact that growers and retailers are selecting to market certain mum types for reasons other than retailer or consumer demand. It seems that retailers most frequently select certain mum types to sell because they appeal to the retailers' personally. In other cases, the retailers' selection of mum types is limited to those mum types that the grower makes available to them. When this happens, the grower, who is least likely to hear the consumers' demands and most likely to market whatever

is easiest to grow, determines the potted chrysanthemum variety mix.

The growers and retailers generally expressed two major misconceptions concerning the consumers' attitudes toward the different mum types. First, they tended to believe that the consumers would not like the incurved mum because it was either too large a plant, or had too large flowers. Secondly, while over half of the panelists recognized the daisy mum as a mum, only thirty-six percent of the growers and retailers thought the consumers could recognize it.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The Typical Buyer of Potted Mums

The typical buyer of potted mums is a woman, who buys potted mums once or twice a year. Usually she buys her mums for holidays. The incurved mum is her favorite mum type and she is most apt to buy it; although her next choice is the decorative mum. She might also buy the decorative, spider, or daisy mum. The feather decorative mum is the least favorite mum. She usually buys from a florist. She thinks all mum types require equal amounts of care, and recognizes all of the five mum types studied, except the daisy mum, as a mum.

Potted Chrysanthemum Market Segments

The potted chrysanthemum market may be divided into five market segments according to the type of potted mum the consumers prefer. As the following interpretation of the data suggests, each of these market segments has a unique socioeconomic and buying behavior background. Only the characteristics of each market segment which are in a unique combination for that market segment are mentioned in the following descriptions.

The Typical Incurved Mum Buyer.

The typical incurved mum buyer is a married, upper-middle aged man. The couple has no children, and their family income is under \$15,000. Although this buyer prefers the incurved mum, he is also attracted to the decorative mum. However, he would pay most for the incurved mum. He does not recognize either the daisy mum or the feather decorative mum as a mum. If he does not think all the mum types require equal amounts care, he will probably think the incurved mum requires the most care.

The Typical Decorative Mum Buyer.

The typical buyer of the decorative mum is equally likely to be a man or woman. Usually there is only one other member of this buyer's family. This potential purchaser and spouse are early-middle aged, and their family income is less than \$15,000. Besides buying the decorative mums, they are also very likely to buy the incurved mums. However, they are apt to pay the most for the decorative mum.

The Typical Spider Mum Buyer.

The typical spider mum buyer is a woman. She and her husband are upper-middle aged, and they have one

teenaged child. Their family income is over \$14,999. While she is most apt to buy and pay most for the spider mum; she is also likely to buy the incurved. This buyer recognizes all the mum types as mums. If she does not think all the mum types require equal care, she is most apt to think the daisy mum requires the least care and the incurved mum the most care.

The Typical Daisy
Mum Buyer.

Like the typical decorative mum buyer, the typical daisy mum buyer is equally likely to be a man or a woman. This buyer and spouse are between the ages of thirty and thirty-nine, and they have two children under twelve years old. Their annual family income is less than \$15,000. Besides being potential buyers of the daisy mum, they are also very likely to buy the incurved mum. However, they would pay most for the daisy mum.

The Typical Feather
Decorative Mum Buyer.

The typical buyer of the feather decorative mum is a man. He and his wife are forty to forty-four years old, and they have no children. Their annual family income is over \$10,000. He is most likely to buy the feather decorative; but would also buy the spider mum. In addition he would pay most for the feather decorative mum and least for the daisy mum.

CONCLUSIONS AND RECOMMENDATIONS

1. Marketing a more diverse selection of potted mum types would probably increase potted mum sales. All potted mum buyers do not like the same type of mum, and these buyers are most likely to purchase the mum type they like best.
2. Percentage wise, the ideal marketing mix of the five mum types studied from the consumers' point of view probably lies within the range of: 36-29 incurved mums; 25-21 decorative mums; 20-19 spider mums; 18-17 daisy mums; 9-6 feather decorative mums; and the first estimate includes all the potted mum types consumers would consider buying, while the second estimate includes only their favorites.
3. Forty-two percent of the consumers would pay most for the incurved mum; 21 percent for the spider mum; 16 percent for the decorative mum; 14 percent for the daisy mum; and 7 percent for the feather decorative mum.
4. About half of the consumers recognize all these five mum types as mums. Consumers that do not

recognize all the mum types as mums are most likely to think the incurved mum is a mum and least likely to think the daisy mum is a mum.

5. Approximately half of the consumers think all of the five mum types require equal amounts of care. The consumers that do not think so generally think the decorative mum requires the least care and the spider mum requires the most care.
6. About one half of the consumers buy potted mums at a florist. Another third buy potted mums at a grocery or discount store. The remaining consumers usually buy potted mums at a retail garden center or farmers market.
7. Consumers are most apt to buy potted mums for holidays.
8. Fifty-eight percent of the consumers buy at least one potted mum a year. Forty percent buy potted mums once or twice a year, while eighteen percent buy potted mums three or more times a year.
9. There is no relationship between the potted mum types growers and retailers think the consumers like best and the potted mum types consumers actually like best. This discrepancy appears to be primarily due to the fact that growers and retailers are selecting their potted mum marketing mix by criteria other than retailer or consumer

demand.

10. From the consumers' point of view, the primary advantage of potted mums is that they are long lasting; and the primary disadvantage is that they are too ordinary.
11. Several potential marketing and advertising strategies for potted mums are made apparent from information gathered during the group interviews. First, to eliminate the consumers' feelings that potted mums are too common, many different varieties of potted mums could be marketed. Secondly, in keeping with the new consumer interest in growing plants of all kinds, care tags with instructions on how to maintain potted mums for the next year's growth season could be sold with suitable potted mums. Also, more garden-type mums could be sold in florist shops so that they might be successfully maintained outside after the first season. Consumers' association of potted mums with the fall season should be discouraged. This association restricts color and variety diversification. It may also detract from year around potted mum sales.
12. In addition, some of the consumers' mental images of specific types of mums might be effectively employed in advertising campaigns. By developing the consumers' positive associations with mums,

the advertising industry could stimulate the consumers' desire for the flower.

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APPENDIX A

CONSUMER PANEL OPINIONNAIRE

Please look at the five plants displayed. When rating the plants, do not consider possible differences in color or height.

1. a. Which plant do you like the best? Put a check beside the symbol of the plant you like best.
- | | |
|---------|----------|
| _____ % | |
| _____ * | _____ @ |
| _____ # | _____ () |

Why do you like it best?

- b. Now place a check beside the plant you like the least.

_____ %	
_____ *	_____ @
_____ #	_____ ()

Why do you like it least?

2. Place a check beside the plant or plants displayed that you think are chrysanthemums (mums).

_____ %	
_____ *	_____ @
_____ #	_____ ()

None _____ All _____

3. a. Assuming you were planning to buy one of these plants, put a 1 beside the plant for which you would pay the most.

_____ %	
_____ *	_____ @
_____ #	_____ ()

- b. Now, place a 5 beside the plant for which you would pay the least.

4. Now about the care of these plants.

- a. Place a 1 beside the plant you think would be easiest to care for at home.

_____ %	
_____ *	_____ @
_____ #	_____ ()

All about the same _____

b. Place a 5 beside the plant
that would be most difficult
to care for at home.

5. Which of these plants would you consider buying?
Keep in mind they would be available in other
colors in addition to yellow.

a. Put a check beside those you might buy.

b. For those plants you might buy, check the
occasion, or occasions for which you would
buy them.

	Holidays	Everyday Use	(Unplanned)
_____ %	_____	_____	_____
_____ *	_____	_____	_____
_____ #	_____	_____	_____
_____ @	_____	_____	_____
_____ ()	_____	_____	_____

	Illness	Funeral or Memorial	Business Use
_____ %	_____	_____	_____
_____ *	_____	_____	_____
_____ #	_____	_____	_____
_____ @	_____	_____	_____
_____ ()	_____	_____	_____

Comments _____

Now some questions about you and your family, and their use of food products and flowers.

1. Panelist is: ☐ Female
☐ Male
2. How many persons in your household now? ☐ Total size of household.
3. Write in the number of people in your household now in each of the following age groups:
☐ 12 & younger
☐ 13 - 19
☐ 20 - 39
☐ 40 & over.
4. Please check the category that best approximates the age of female head of your household.
Check one:
☐ Under 30 years
☐ 30 - 44
☐ 60 & over.
5. Please check the category that best approximates the educational level of the female head of your household.
Check one:
☐ 8th grade
☐ Some high school.
☐ Completed high school.
☐ Some college or business school.
☐ Completed college or more.
6. Is the female head of your household employed outside of the home?
Check one:
☐ Full time.
☐ Part time.
☐ Not employed.

7. Please check the category that best approximates your 1973 total family income before taxes were deducted:
- _____ Under \$4,000
 _____ \$4,000 - \$6,999
 _____ \$7,000 - \$9,999
 _____ \$10,000-\$14,999
 _____ \$15,000-\$19,999
 _____ \$20,000 & over.
8. In what type of dwelling do you now live?
- _____ One family house.
 _____ Two family house.
 _____ Apartment or townhouse.
 _____ Other, explain
-
-

Flowers

9. In the last year how many times did you or anyone in your family buy cut flowers and/or potted flowering plants--for your own family or for others?
Check one:
- _____ None
 _____ 1 or 2 times.
 _____ 3 to 5 times.
 _____ 6 to 12 times.
 _____ More than 12 times.

IF YOU HAVE NOT BOUGHT ANY CUT FLOWERS OR POTTED FLOWERING PLANTS IN THE LAST YEAR, YOU ARE READY TO CHECK IN YOUR EVALUATION FORMS (IF YOU HAVE ANSWERED ALL THE EARLIER QUESTIONS).

10. How many times did you buy potted chrysanthemum plants (pot mums) in the last year?
- _____ None
- _____ 1 or 2 times.
- _____ 3 to 5 times.
- _____ 6 to 12 times.
- _____ More than 12 times.
- _____ None bought but received as gift.

IF YOU HAVE NOT BOUGHT ANY POTTED MUMS IN THE LAST YEAR, YOU ARE READY TO CHECK IN YOUR EVALUATION FORMS (IF YOU HAVE ANSWERED ALL THE EARLIER QUESTIONS).

11. Of the pot mums bought in the last year, who were they usually for?
- _____ My immediate family or my home.
- _____ Others.
- _____ About equally for my home and for others.
12. For the pot mums bought in the last year by members in your family, please put an "F" beside the occasions for which they were bought for the immediate family, and an "O" if they were for others.
- F - family
- O - others
- F & O - both family & others
- _____ Holidays or special occasions.
- _____ Everyday use.
- _____ No particular reason.
- _____ Illness.
- _____ Funeral or Memorial.
- _____ Business use.
- _____ Other, explain

13. Who in your family usually makes the final selection of pot mums?
Check one:
- ☐ Call florist & he decides.
- ☐ Wife or female head of household alone.
- ☐ Husband alone.
- ☐ Husband & Wife.
- ☐ Group decision (adults & children)
- ☐ Other, explain
-

15. Where were pot mums most often bought by members of your family in last year?
- Put a 1 beside where most often bought.
- Put a 2 beside where next often bought.
- ☐ Grocery or discount store.
- ☐ Retail garden center.
- ☐ Florist.
- ☐ Farmers market or roadside market.
- ☐ Other, explain
-

16. What was the usual price for the pot mums bought by family members in the last year?
Check one:
- ☐ Under \$4.00
- ☐ \$4.00 to \$8.00
- ☐ Over \$8.00
-

YOU ARE READY TO CHECK IN YOUR EVALUATION FORMS.

APPENDIX B

DIRECTIVE QUESTIONS FOR GROUP INTERVIEWS

1. Do you buy mums/flowers? Why? Why not?
2. What do you look for in the mums/flowers you buy?
(Color, price, kind, lasting quality.)
3. When do you buy mums/flowers?
4. Who do you buy mums/flowers for? Do you buy
mums/flowers for yourself?
5. Do you buy different types of mums/flowers or
colors of mums/flowers for different occasions?
Do you buy different types of mums/flowers or
colors of flowers for different people?
6. Do you ever give mums/flowers? What kind do
you give? How did it make you feel?
7. Have you ever received mums/flowers? What kind
do you like best to receive? How does it make
you feel?
8. What is your favorite type of mums/flowers? Why
is it your favorite?
9. What do you think of in connection with mums?
10. What do you think of in connection with daisies?
11. What is your favorite type of mum? Why?
12. What would make you buy more mums/flowers?

APPENDIX C

OPINIONNAIRE FOR POT MUM GROWERS AND RETAILERS

This opinionnaire is part of a study of potted chrysanthemum marketing that is being conducted at Michigan State University. The study is only concerned with pot mums so when answering the following questions, do not consider cut mums. We appreciate your cooperation.

PLEASE DO NOT SIGN YOUR NAME OR YOUR COMPANY'S NAME.

1. About what percentage of the pot mums you sold last year were:

Decoratives? (Annes)	_____ %
Feathered Decoratives?	_____ %
Daisies?	_____ %
Incurved? (football)	_____ %
Spider	_____ %
Other	_____ %

Please explain other _____

2. Why did you select the type of pot mums you sold?

TO ANSWER QUESTIONS THREE THROUGH EIGHT, ASSUME ALL OF THE POT MUMS ARE OF EQUAL QUALITY.

3. Rank the following types of pot mums according to the order consumers would like them. (Put #1 in front of the type of mum consumers would like the best, and #5 in front of the type of mum consumers would like the least.)

Decoratives (annes)	_____
Feathered Decoratives	_____
Daisies	_____
Incurved (football)	_____
Spider	_____

4. Why would consumers like #1 best?

5. Why would consumers like #5 the least?

6. Would most consumers think a daisy pot mum was a mum?

Yes ☐

No ☐

7. How would most consumers react to a daisy pot mum?
Why?

8. Which of these plants would most consumers consider buying? Keep in mind they would be available in assorted colors.

a. Put a check beside those plants most consumers might buy.

b. For those plants most consumers might buy, check the occasion or occasions for which they would buy them.

	Holidays	Everyday Use	Unplanned
<input type="checkbox"/> Decorative	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Feather	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Decorative	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Daisies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Incurved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Spider	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

		Illness	Funeral	Business
_____	Decorative	_____	_____	_____
_____	Feather	_____	_____	_____
_____	Decorative	_____	_____	_____
_____	Daisies	_____	_____	_____
_____	Incurved	_____	_____	_____
_____	Spider	_____	_____	_____

9. Are you a pot mum _____ grower?
 _____ retailer?

APPENDIX D

SUMMARY TABLES CONSUMER

PANEL SERIES SPRING

1974

I. Background Information.

1. Age of Female Head of Household.

<u>Age Group</u>	<u>Females 20 Years & Older in Michigan 1970 Census*</u>	<u>2227 Michigan Panelist</u>
Under 30 years	24%	15%
30 - 44 years	28%	37%
45 - 59 years	26%	34%
60 years and over	22%	14%
	<u>100%</u>	<u>100%</u>

*Source: U. S. Census of Population - 1970: Michigan.
General Population Characteristics.

2. Educational Attainment of Female Head of Household.

<u>Educational Level</u>	<u>Years of School Completed by Females 25 Yrs. & Over in Michigan*</u>	<u>2227 Michigan Panelists</u>
Elementary school (1-8 years)	23%	3%
Some high school (1-3 years)	22%	9%
Completed high school	38%	34%
Some college or business school	10%	34%
Completed college or more	7%	20%
	<u>100%</u>	<u>100%</u>

*Source: U. S. Census of Population - 1970: Michigan.
General Social and Economics Characteristics.

3. Distribution of Family Income.

<u>Income Class</u>	<u>U.S. Total Money Income of Families in 1973</u>	<u>Approximate 1973 Family Income 2227 Michigan Panelists</u>
Under \$7,000	24%	12%
\$7-9,999	15%	9%
\$10-14,999	26%	31%
\$15-19,999	17%	26%
\$20,000 & over	18%	19%
No Response	0%	2%
	<u>100%</u>	<u>100%</u>

*Source: Current Population Reports Series P-60,
No. 93 - July 1974.

4. Employment of Female Head of Household.

<u>Employment</u>	<u>Percent of Women in U.S. Labor Force*</u>	<u>2227 Michigan Panelists</u>
Full time	37%	16%
Part time	10%	15%
Not employed	53%	69%
	<u>100%</u>	<u>100%</u>

*Source: "Manpower Report of the President;" March
1973, Government Printing Office.

APPENDIX E

CHI SQUARE TABLES FROM THE CONSUMER PANEL OPINIONNAIRE

HYPOTHESIS 1:

The number of panelists who liked the incurved mum best and least equals zero. In addition, the number of panelists who liked the other four mum types best and the incurved mum least is distributed as the totals of the panelists who liked the other four mum types best (Appendix E, Table A1, p. 79).

This hypothesis is rejected.

Chi Square = 94.8. Significance = .005.

HYPOTHESIS 2:

The number of panelists who liked the daisy mum best and least equals zero. In addition, the number of panelists who liked the other four mum types best and the daisy mum least is distributed as the totals of the panelists who liked the other four mum types best (Appendix E, Table A1, p. 79).

This hypothesis is rejected.

Chi Square = 43.7. Significance = .005.

HYPOTHESIS 3:

The number of panelists who liked the spider mum best and least equals zero. In addition, the number of panelists who liked the other four mum types best and the spider mum least is distributed as the totals of the panelists who liked the other four

mum types best (Appendix E, Table A1, p. 79).

This hypothesis is rejected.

Chi Square = 15.8. Significance = .005.

HYPOTHESIS 4:

The number of panelists who liked the decorative mum best and least equals zero. In addition, the number of panelists who liked the other four mum types best and the decorative mum least is distributed as the totals of the panelists who liked the other four mum types best (Appendix E, Table A1,p.79).

This hypothesis is rejected.

Chi Square = 51.4. Significance = .005.

HYPOTHESIS 5:

The number of panelists who liked the feather decorative mum best and least equals zero. In addition, the number of panelists who liked the other four mum types best and the feather decorative mum least is distributed as the totals of the panelists who like the other four mum types best (Appendix E, Table A1, p. 79).

This hypothesis is accepted.

TABLE A1--A CHI SQUARE OF THE MUM TYPES PANELISTS LIKED LEAST (QUESTION 2) COMPARED
TO THE MUM TYPES PANELISTS LIKED BEST (QUESTION 1)

QUESTION 1						
	Incurved	Daisy	Spider	Decorative	Feather Decorative	Row Total
Incurved	1	43	48	15	26	133
Daisy	116	3	142	67	26	354
Spider	130	76	5	73	10	294
Decorative	18	30	49	1	16	114
Feather Decorative	369	235	239	241	4	1088
Column Total	634	387	483	397	82	1983

OVER-ALL CHI SQUARES NOT RELEVANT.

TABLE A2--A CHI SQUARE OF WHETHER PANELISTS RECOGNIZED ALL THE MUM TYPES (QUESTION 8)
 COMPARED TO THE MUM TYPES PANELISTS LIKED BEST (QUESTION 1)

QUESTION 1					
	Incurved	Daisy	Spider	Decorative	Feather Decorative
					Row Total
All Are Not Mums	407	226	251	193	39
					1116
All Are Mums	224	160	240	203	43
					870
Column Total	631	386	491	396	82
					1986

Chi Square = 33.8

Significance = .005

TABLE A3--A CHI SQUARE OF WHETHER PANELISTS RECOGNIZED THE SPIDER MUM AS A MUM
(QUESTION 5) COMPARED TO THE MUM TYPES PANELISTS LIKED BEST
(QUESTION 1)

QUESTION 1					
QUESTION 5					
	Incurved	Daisy	Spider	Decorative	Feather Decorative
Spider is Not a Mum	217	129	108	113	19
					586
Spider is a Mum	190	100	141	79	20
					530
Column Total	407	229	249	192	39
					1116

Chi Square = 12.2

Significance = .05

TABLE A4--A CHI SQUARE OF WHETHER PANELISTS RECOGNIZED THE DECORATIVE MUM AS A MUM
(QUESTION 6) COMPARED TO THE MUM TYPES PANELISTS LIKED BEST (QUESTION 1)

QUESTION 1					
	Incurved	Daisy	Spider	Decorative	Feather Decorative
Decorative is Not a Mum	392	246	337	280	59
					1314
Decorative is a Mum	239	140	154	116	23
					672
Column Total	631	386	491	396	82
					1986

Chi Square = 11.0

Significance = .05

TABLE A5--A CHI SQUARE OF WHETHER PANELISTS RECOGNIZED THE FEATHER DECORATIVE MUM AS A MUM (QUESTION 7) COMPARED TO THE MUM TYPES PANELISTS LIKED BEST (QUESTION 1)

QUESTION 1					
QUESTION 7	Incurved	Daisy	Spider	Decorative	Feather Decorative Row Total
Feather Decorative is Not a Mum	462	291	375	337	66 1531
Feather Decorative is a Mum	169	95	116	59	16 455
Column Total	631	386	491	396	82 1986

Chi Square = 20.1

Significance = .005

TABLE A6--A CHI SQUARE OF WHETHER PANELISTS WOULD BUY THE INCURVED MUM (QUESTION 21) COMPARED TO THE MUM TYPES PANELISTS LIKED BEST (QUESTION 1)

		QUESTION 1			
		Incurved	Daisy	Spider	Feather Decorative
					Decorative
					Row Total
QUESTION 21	Would Not Buy	31	151	165	44
				127	518
	Would Buy	606	237	328	39
				271	1481
Column Total		637	388	493	83
				398	1999

Chi Square = 231.2

Significance = .005

TABLE A7--A CHI SQUARE OF WHETHER PANELISTS WOULD BUY THE DAISY MUM (QUESTION 28)
 COMPARED TO THE MUM TYPES PANELISTS LIKED BEST (QUESTION 1)

	QUESTION 1				
	Incurved	Daisy	Spider	Decorative	Feather Decorative
Would Not Buy	388	26	289	205	43
QUESTION 28					951
Would Buy	249	362	204	193	40
					1048
Column Total	637	388	493	398	83
					1999

Chi Square = 329.6

Significance = .005

TABLE A8--A CHI SQUARE OF WHETHER PANELISTS WOULD BUY THE SPIDER MUM (QUESTION 35)
 COMPARED TO THE MUM TYPES PANELISTS LIKED BEST (QUESTION 1)

QUESTION 1						
	Incurved	Daisy	Spider	Decorative	Feather Decorative	Row Total
QUESTION 35	Would Not Buy	361	225	35	34	881
	Would Buy	276	163	458	49	1118
	Column Total	637	388	493	398	83

Chi Square = 368.2

Significance = .005

TABLE A9--A CHI SQUARE OF WHETHER PANELISTS WOULD BUY THE DECORATIVE MUM (QUESTION 42) COMPARED TO THE MUM TYPES PANELISTS LIKED BEST (QUESTION 1)

QUESTION 1					
	Incurved	Daisy	Spider	Decorative	Feather Decorative
Row Total					
Would Not Buy	250	174	236	24	38
					724
Would Buy	387	212	257	374	45
					1275
Column Total	637	388	493	398	83
					1999

Chi Square = 203.1

Significance = .005

TABLE A10--A CHI SQUARE OF WHETHER PANELISTS WOULD BUY THE FEATHER DECORATIVE MUM
(QUESTION 49) COMPARED TO THE MUM TYPES PANELISTS LIKED BEST
(QUESTION 1)

QUESTION 1							
	Incurved	Daisy	Spider	Decorative	Feather Decorative	Row Total	
QUESTION 49	Would Not Buy	557	311	356	346	9	1579
	Would Buy	80	77	137	52	74	420
	Column Total	637	388	493	398	83	1999

Chi Square = 283.2

Significance = .005

TABLE A11--A CHI SQUARE OF WHETHER PANELISTS WOULD PAY EITHER THE MOST OR THE LEAST FOR THE INCURVED MUM (QUESTION 10) COMPARED TO THE MUM TYPES PANELISTS LIKED BEST (QUESTION 1)

QUESTION 10	QUESTION 1				Row Total
	Incurved	Daisy	Spider	Feather Decorative	
Pay Most	513	79	80	11	765
Pay Least	2	27	36	16	98
Column Total	515	106	116	27	863

Chi Square = 182.4

Significance = .005

TABLE A11--A CHI SQUARE OF WHETHER PANELISTS WOULD PAY EITHER THE MOST OR THE LEAST
FOR THE INCURVED MUM (QUESTION 10) COMPARED TO THE MUM TYPES PANELISTS
LIKED BEST (QUESTION 1)

		QUESTION 1			
QUESTION 10		Incurved	Daisy	Spider	Feather Decorative
		Decorative	Decorative	Decorative	Row Total
	Pay Most	513	79	80	11
					765
	Pay Least	2	27	36	16
					98
	Column Total	515	106	116	27
					863

Chi Square = 182.4
Significance = .005

TABLE A12--A CHI SQUARE OF WHETHER PANELISTS WOULD PAY EITHER THE MOST OR THE LEAST FOR THE DAISY MUM (QUESTION 11) COMPARED TO THE MUM TYPES PANELISTS LIKED BEST (QUESTION 1)

QUESTION 1					
QUESTION 11	Incurved	Daisy	Spider	Decorative	Feather Decorative
	Row Total				
	Pay Most	15	216	11	11
	Pay Least	143	15	161	89
Column Total	158	231	172	100	35
Chi Square = 475.2					
Significance = .005					

TABLE A13--A CHI SQUARE OF WHETHER PANELISTS WOULD PAY EITHER THE MOST OR THE LEAST FOR THE SPIDER MUM (QUESTION 12) COMPARED TO THE MUM TYPES PANELISTS LIKED BEST (QUESTION 1)

	QUESTION 1					Row Total
	Incurved	Daisy	Spider	Decorative	Feather	
QUESTION 12	Pay Most	73	52	374	52	568
	Pay Least	101	68	3	54	233
	Column Total	174	120	377	106	801

Chi Square = 280.7

Significance = .005

TABLE A14--A CHI SQUARE OF WHETHER PANELISTS WOULD PAY EITHER THE MOST OR THE LEAST FOR THE DECORATIVE MUM (QUESTION 13) COMPARED TO THE MUM TYPES PANELISTS LIKED BEST (QUESTION 1)

		QUESTION 1						
		Incurved	Daisy	Spider	Decorative	Feather Decorative	Row Total	
QUESTION 13	Pay Most	27	25	7	243	1	303	
	Pay Least	31	61	67	9	22	190	
	Column Total	58	86	74	252	23	493	
Chi Square = 281.8								
Significance = .005								

TABLE A15--A CHI SQUARE OF WHETHER PANELISTS WOULD PAY EITHER THE MOST OR THE LEAST FOR THE FEATHER DECORATIVE MUM (QUESTION 14) COMPARED TO THE MUM TYPES PANELISTS LIKED BEST (QUESTION 1)

		QUESTION 1					
		Incurved	Daisy	Spider	Decorative	Feather Decorative	Row Total
QUESTION 14	Pay Most	11	11	18	8	51	99
	Pay Least	340	201	202	207	2	952
	Column Total	351	212	220	215	53	1051

Chi Squares = 485.2

Significance = .005

TABLE A16--A CHI SQUARE OF WHETHER PANELISTS THOUGHT THE INCURVED MUM REQUIRED EITHER THE MOST OR THE LEAST CARE (QUESTION 15) COMPARED TO THE MUM TYPES PANELISTS LIKED BEST (QUESTION 1)

QUESTION 1					
QUESTION 15	Incurred				Row Total
	Daisy	Spider	Decorative	Feather Decorative	
Least Care	120	31	18	7	215
Most Care	58	72	53	12	237
Column Total	178	103	71	19	452

Chi Squares = 52.9

Significance = .005

TABLE A17--A CHI SQUARE OF WHETHER PANELISTS THOUGHT THE SPIDER MUM REQUIRED EITHER THE MOST OR THE LEAST CARE (QUESTION 17) COMPARED TO THE MUM TYPES PANELISTS LIKED BEST (QUESTION 1)

QUESTION 1					
	Incurved	Daisy	Spider	Decorative	Feather Decorative
Least Care	16	8	29	9	0
QUESTION 17					62
Most Care	140	77	65	85	14
					381
Column Total	156	85	94	94	14
					444

Chi Square = 25.9

Significance = .005

TABLE A18--A CHI SQUARE OF THE NUMBER OF TIMES PANELISTS BOUGHT FLOWERS IN THE YEAR
PRIOR TO THE PANELS (QUESTION 67) COMPARED TO THE MUM TYPES PANELISTS
LIKED BEST (QUESTION 1)

		QUESTION 1					Row Total
		Incurved	Daisy	Spider	Decorative	Feather Decorative	
QUESTION 67	Never	67	37	27	39	3	173
	Once or twice	190	130	116	106	22	564
	Three to five times	250	139	212	162	36	799
	Six or more times	129	84	135	89	22	459
	Column Total	636	390	490	397	83	1996

Chi Square = 27.9

Significance = .01

TABLE A19--A CHI SQUARE OF THE NUMBER OF TIMES PANELISTS BOUGHT POTTED MUMS IN THE YEAR PRIOR TO THE PANELS (QUESTION 68) COMPARED TO THE MUM TYPES PANELISTS LIKED BEST (QUESTION 1)

QUESTION 1					
	Incurved	Daisy	Spider	Decorative	Feather Decorative
Row Total					
Never	267	174	166	157	29
Once or twice	233	154	221	146	37
Three or more times	137	63	104	94	17
Column Total	637	391	491	397	83
					1999

Chi Square = 18.9

Significance = .05

TABLE A20--A CHI SQUARE OF WHETHER PANELISTS WOULD BUY THE INCURVED MUM FOR A
HOLIDAY (QUESTION 22) COMPARED TO THE MUM TYPES PANELISTS LIKED
BEST (QUESTION 1)

QUESTION 1					
QUESTION 22	Incurved			Feather	
	Daisy	Spider	Decorative	Decorative	Row Total
Would Not Buy	163	77	128	95	20
					483
Would Buy	464	170	219	185	22
					1060
Column Total	627	247	347	280	42
					1543

Chi Square = 18.0

Significance = .005

TABLE A21--A CHI SQUARE OF WHETHER PANELISTS WOULD BUY THE DAISY MUM FOR A HOLIDAY
(QUESTION 29) COMPARED TO THE MUM TYPES PANELISTS LIKED BEST (QUESTION
1)

QUESTION 1					
	Incurved	Daisy	Spider	Decorative	Feather Decorative
Row Total					
Would Not Buy	152	137	132	109	25
					556
Would Buy	111	239	90	92	17
					546
Column Total	263	376	122	201	42
					1105

Chi Square = 43.2

Significance = .005

TABLE A22--A CHI SQUARE OF WHETHER PANELISTS WOULD BUY THE SPIDER MUM FOR A HOLIDAY (QUESTION 36) COMPARED TO THE MUM TYPES PANELISTS LIKED BEST (QUESTION 1)

QUESTION 1					
	Incurved	Daisy	Spider	Decorative	Feather Decorative
Row Total					
Would Not Buy	141	65	124	81	17
					428
Would Buy	153	107	348	105	34
					747
Column Total	294	172	472	186	51
					1175

Chi Square = 40.9

Significance = .005

TABLE A23--A CHI SQUARE OF WHETHER PANELISTS WOULD BUY THE DECORATIVE MUM FOR A HOLIDAY (QUESTION 43) COMPARED TO THE MUM TYPES PANELISTS LIKED BEST (QUESTION 1)

QUESTION 1							
	Incurred	Daisy	Spider	Decorative	Feather Decorative	Row Total	
QUESTION 43	Would Not Buy	209	87	148	133	31	608
	Would Buy	192	134	128	251	15	720
Column Total	401	221	276	384	46	1328	

Chi Square = 42.8

Significance = .005

TABLE A24--A CHI SQUARE OF WHETHER PANELISTS WOULD BUY THE FEATHER DECORATIVE MUM
 FOR A HOLIDAY (QUESTION 50) COMPARED TO THE MUM TYPES PANELISTS LIKED
 BEST (QUESTION 1)

QUESTION 1						
	Incurved	Daisy	Spider	Decorative	Feather Decorative	Row Total
QUESTION 50	Would Not Buy	66	37	81	26	247
	Would Buy	26	43	71	49	207
Column Total		92	80	152	75	454

Chi Square = 26.5
 Significance = .005

TABLE A25--A CHI SQUARE OF WHETHER PANELISTS WOULD BUY THE DECORATIVE MUM FOR A FUNERAL OR MEMORIAL (QUESTION 47) COMPARED TO THE MUM TYPES PANELISTS LIKED BEST (QUESTION 1)

QUESTION 1						
	Incurved	Daisy	Spider	Decorative	Feather Decorative	Row Total
Would Not Buy	259	144	164	211	34	812
Would Buy	142	77	112	173	12	516
Column Total	401	221	273	384	46	1328

Chi Square = 12.1

Significance = .05

TABLE A25--A CHI SQUARE OF WHETHER PANELISTS WOULD BUY THE DECORATIVE MUM FOR A FUNERAL OR MEMORIAL (QUESTION 47) COMPARED TO THE MUM TYPES PANELISTS LIKED BEST (QUESTION 1)

		QUESTION 1				
		Incurved	Daisy	Spider	Decorative	Feather Decorative
						Row Total
QUESTION 47	Would Not Buy	259	144	164	211	34
						812
	Would Buy	142	77	112	173	12
						516
Column Total		401	221	273	384	46
						1328

Chi Square = 12.1

Significance = .05

TABLE A26--A CHI SQUARE OF WHETHER PANELISTS WOULD BUY THE INCURVED MUM FOR A GIFT TO
A SICK PERSON (QUESTION 25) COMPARED TO THE MUM TYPES PANELISTS LIKED
BEST (QUESTION 1)

QUESTION 1					
	Incurved	Daisy	Spider	Decorative	Feather Decorative
QUESTION 25					Row Total
Would Not Buy	335	155	211	154	30 885
Would Buy	292	92	136	126	12 658
Column Total	627	247	347	280	42 1543

Chi Square = 11.5

Significance = .05

TABLE A27--A CHI SQUARE OF WHETHER PANELISTS WOULD BUY POTTED MUMS FOR NO PARTICULAR REASON (QUESTION 72) COMPARED TO THE MUM TYPES PANELISTS LIKED BEST (QUESTION 1)

QUESTION 1					
	Incurved	Daisy	Spider	Decorative	Feather Decorative
Row Total					
Would Not Buy	296	162	266	176	37
					937
Would Buy	51	44	58	56	14
					223
Column Total	347	206	324	232	51
					1160

Chi Square = 10.1

Significance = .05

TABLE A28--A CHI SQUARE OF WHETHER PANELISTS WOULD BUY THE DAISY MUM FOR NO PARTICULAR REASON (QUESTION 31) COMPARED TO THE MUM TYPES PANELISTS LIKED BEST (QUESTION 1)

QUESTION 1							
	Incurved	Daisy	Spider	Decorative	Feather Decorative	Row Total	
QUESTION 31	Would Not Buy	181	215	150	145	30	722
	Would Buy	82	161	72	56	12	383
Column Total		263	376	222	201	42	1105

Chi Square = 16.6

Significance = .01

TABLE A29--A CHI SQUARE OF WHETHER PANELISTS WOULD BUY THE SPIDER MUM FOR NO PARTICULAR REASON (QUESTION 38) COMPARED TO THE MUM TYPES PANELISTS LIKED BEST (QUESTION 1)

QUESTION 1							
		Incurved	Daisy	Spider	Decorative	Feather Decorative	Row Total
QUESTION 38	Would Not Buy	234	124	324	147	38	867
	Would Buy	60	48	148	39	13	308
	Column Total	294	172	472	186	51	1175

Chi Square = 13.6

Significance = .05

TABLE A30--A CHI SQUARE OF WHETHER PANELISTS WOULD BUY POTTED MUMS FOR EVERYDAY
 USE (QUESTION 71) COMPARED TO THE MUM TYPES PANELISTS LIKED BEST
 (QUESTION 1)

QUESTION 1					
	Incurved	Daisy	Spider	Decorative	Feather Decorative
Row Total					
Would Not Buy	302	157	267	197	39
					962
QUESTION 71					
Would Buy	45	49	57	35	12
					198
Column Total	347	206	324	232	51
					1160

Chi Square = 11.6

Significance = .05

TABLE A31--A CHI SQUARE OF WHETHER PANELISTS WOULD BUY THE SPIDER MUM FOR EVERYDAY USE (QUESTION 37) COMPARED TO THE MUM TYPES PANELISTS LIKED BEST (QUESTION 1)

QUESTION 1							
		Incurved	Daisy	Spider	Decorative	Feather Decorative	Row Total
QUESTION 37	Would Not Buy	248	128	336	161	34	907
	Would Buy	45	44	134	24	17	264
	Column Total	293	172	470	185	51	1171

Chi Square = 30.2

Significance = .005

TABLE A32--A CHI SQUARE OF WHETHER PANELISTS WOULD BUY THE FEATHER DECORATIVE MUM
FOR EVERYDAY USE (QUESTION 51) COMPARED TO THE MUM TYPES PANELISTS
LIKED BEST (QUESTION 1)

QUESTION 1						
	Incurved	Daisy	Spider	Decorative	Feather Decorative	Row Total
QUESTION 51	Would Not Buy	69	53	104	47	318
	Would Buy	23	27	48	8	136
Column Total	92	80	152	55	75	454

Chi Square = 10.0

Significance = .05

TABLE A33--A CHI SQUARE OF THE PRICE PANELISTS WOULD PAY FOR A POTTED MUM (QUESTION 83) COMPARED TO THE MUM TYPES PANELISTS LIKED BEST (QUESTION 1)

QUESTION 1					
	Incurved	Daisy	Spider	Decorative	Feather Decorative
Row Total					
Under \$4.00	114	95	141	95	30
					475
QUESTION 83					
\$4.00 to \$8.00	224	103	175	132	24
					659
Over \$8.00	13	7	11	6	0
					37
Column Total	351	205	327	234	54
					1172

Chi Square = 17.4

Significance = .05

TABLE A34--A CHI SQUARE OF WHETHER PANELISTS WOULD BUY POTTED MUMS AT A FARMERS MARKET (QUESTION 81)

		QUESTION 1					
		Incurved	Daisy	Spider	Decorative	Feather Decorative	Row Total
QUESTION 81	Usually Buy There	29	28	28	26	5	116
	Frequently Buy There	32	22	48	20	8	130
	Infrequently Buy There	272	146	139	183	39	779
	Column Total	333	196	315	229	52	1125

Chi Square = 28.9

Significance = .005

TABLE A35--A CHI SQUARE OF THE PANELISTS FAMILY INCOME (QUESTION 65) COMPARED TO
THE MUM TYPES PANELISTS LIKED BEST (QUESTION 1)

QUESTION 1					
	Incurved	Daisy	Spider	Decorative	Feather Decorative
					Row Total
Under	43	13	13	20	6
\$4.00					95
\$4,000-	60	26	33	33	9
\$6,999					161
\$7,000-	58	40	50	41	7
\$9,999					196
\$10,000-	208	120	138	134	23
\$14,999					623
\$15,000-	154	107	117	94	21
\$19,999					493
\$20,000-	103	76	129	63	17
or Over					388
Column Total	626	382	480	385	83
					1956
Chi Squares = 36.3				Significance = .01	
				113	

QUESTION
65

TABLE A36--A CHI SQUARE OF THE SIZE OF THE PANELISTS' FAMILIES (QUESTION 57)
 COMPARED TO THE MUM TYPES PANELISTS LIKED BEST (QUESTION 1)

	QUESTION 1					Row Total
	Incurved	Daisy	Spider	Decorative	Feather Decorative	
One	49	19	23	34	7	132
Two	168	84	143	102	31	528
Three	128	66	85	81	10	370
Four	128	101	117	77	13	436
Five	80	58	63	61	12	274
Six or More	84	63	60	42	10	259
Column Total	637	391	491	397	83	1999

Chi Square = 31.7
 Significance = .05

TABLE A37--A CHI SQUARE OF THE AGES OF THE FEMALE HEADS OF THE PANELISTS' FAMILIES (QUESTION 62) COMPARED TO THE MUM TYPES PANELISTS LIKED BEST (QUESTION 1)

	QUESTION 1					Row Total
	Incurved	Daisy	Spider	Decorative	Feather Decorative	
Younger than 30	96	76	51	70	13	306
30 to 45	204	171	161	142	30	708
45 to 59	227	118	203	123	20	691
60 or Older	106	26	75	59	19	285
Column Total	633	391	490	394	82	1990

Chi Square = 57.0
Significance = .005

HYPOTHESIS 1:

The number of panelists who have zero or three family members who are twelve years old or younger is independent of the mum types panelists liked best (Appendix E, Table A38, p. 117).

This hypothesis is rejected.

Chi Square = 11.0. Significance = .05.

TABLE A38--A CHI SQUARE OF THE NUMBER OF MEMBERS OF THE PANELISTS' FAMILIES WHO ARE TWELVE YEARS OLD OR YOUNGER (QUESTION 58) COMPARED TO THE MUM TYPES PANELISTS LIKED BEST (QUESTION 1)

		QUESTION 1					
		Incurved	Daisy	Spider	Decorative	Feather Decorative	Row Total
QUESTION 58	None	357	193	296	233	48	1127
	One	104	63	80	45	14	306
	Two	109	81	77	75	13	355
	Three or More	67	54	38	44	8	211
Column Total		637	391	491	397	83	1999

OVER-ALL CHI SQUARES NOT SIGNIFICANT.

TABLE A39--A CHI SQUARE OF THE NUMBER OF MEMBERS OF THE PANELISTS' FAMILIES WHO ARE BETWEEN THE AGES OF THIRTEEN AND NINETEEN (QUESTION 59) COMPARED TO THE MUM TYPES PANELISTS LIKED BEST (QUESTION 1)

QUESTION 1					
	Incurved	Daisy	Spider	Decorative	Feather Decorative
					Row Total
None	425	232	287	255	58
One	103	83	106	85	10
Two or More	109	76	98	57	15
Column Total	637	391	491	397	83
					1999

Chi Square = 16.2

Significance = .05

TABLE A40--A CHI SQUARE OF THE NUMBER OF MEMBERS OF THE PANELISTS' FAMILIES WHO ARE BETWEEN THE AGES OF TWENTY AND THIRTY-NINE (QUESTION 60) COMPARED TO THE MUM TYPES PANELISTS LIKED BEST (QUESTION 1)

QUESTION 1					
	Incurved	Daisy	Spider	Decorative	Feather Decorative
QUESTION 60					Row Total
None	299	143	268	167	41
One	134	79	96	81	15
Two or More	204	169	127	149	27
Column Total	637	391	491	397	83
					1999

Chi Square = 37.9

Significance = .005

TABLE A41--A CHI SQUARE OF THE NUMBER OF MEMBERS OF THE PANELISTS' FAMILIES WHO ARE FORTY YEARS OLD OR OLDER (QUESTION 61) COMPARED TO THE MUM TYPES PANELISTS LIKED BEST (QUESTION 1)

QUESTION 1					
	Incurved	Daisy	Spider	Decorative	Feather Decorative
QUESTION 61					Row Total
None	197	165	121	152	26
					661
One	103	57	68	61	12
					301
Two or More	337	169	302	184	45
					1037
Column Total	637	391	491	397	83
					1999

Chi Square = 41.2

Significance = .005

APPENDIX F

RESULTS FROM GROUP INTERVIEWS

Positive Attitudes Toward Flowers.

- (3) "It gives life to the house. With all the dullness in life, you need flowers."
- (2) "It's a challenge to see if you can grow it."
- (1) "I like my indoor plants better than my outdoor plants. I have my indoor plants all year, and I've become an indoor person out of necessity--with the kids and all."
- (2) "I got these real cravings for flowers we used to have when I was a child--like gardenias or hollyhocks."

Negative Attitudes Toward Flowers.

- (6) "I feel less inclined to give flowers for funerals because--what happens to the flowers after the funerals? They either take them home and they (the flowers) are just a sad memory or they throw them (the flowers) out."
- (1) "I don't like to buy lilies at Easter or mums at Thanksgiving because I don't like that 'have to' feeling."
- (2) "I don't have time to think about flowers."

Seasonability of Flowers.

- (5) "It depends on the time of the year. In the spring I like daffodils and tulips, in the fall there's mums, and of course around Christmas time you have

your poinsetteas and cyclamen."

- (2) "An azalea for Christmas would be a lovely thing, but you can't find them."
- (3) "From the time the snow melts to the time it falls again I can pick flowers in my own garden."
- (2) "I feel guilty about cutting flowers from my garden. So, I might buy flowers during the summer even if I had flowers in my garden."

Price.

- (7) "Expense--that's why I don't buy very many flowers."
- (5) "I think one reason I buy potted plants and not cut flowers is that at the grocery you can get a big potted plant for \$2.50, but you can only get six or seven cut flowers for \$1.75."
- (3) "For special occasions, I would pay more. Also, if I were buying them for someone else."
- (2) "If I just want to take a little something to a friend I don't want to pay too much."

Decorating with Plants and Flowers.

- (4) "Every picture of every room in the women's magazines these days have plants in them--more the green plants than the flowering plants."
- (2) "Mostly if I give flowers I try to get something that will go with their color scheme."

- (1) "When I go down to the farmers market, I just buy the prettiest flowers I don't think of how it will look in the room."
- (2) "Sometimes the house is torn up. You are making throw pillows or something. I think that's (buying flowers) the last think you do when your house is completely settled."

Lasting Qualities of Flowers.

- (6) "I like flowers to last. I'll admit that I'm cheap and I want my money's worth. If I am paying five or ten dollars for it, I want it to last more than five or ten minutes."
- (3) "I've stopped buying plants. They just don't like me as soon as they get in my house they wilt."
- (3) "I like cut flowers. I don't have the time or the patience for plants."

Shape of Flowers.

- (2) "I like the flowers that grow singly on a stem. You can control them better in an arrangement."
- (2) "Orchids just fascinate me. They're so frilly--light--beautiful."
- (3) "There's just something about the perfect shape of a rose bud just the way God made it."

Smell of Flowers.

- (2) "I like the smell of lilacs. I'll carry them around from room to room with me just so I can smell them."
- (2) "I love the smell of roses. There's nothing else like it."

Buying Flowers for Themselves.

- (3) "When I was working I'd stop at Joslines and I'd buy a whole bunch of flowers for thirty cents. But now days, there are so many expenses with the kids growing up that I just don't feel I can treat myself like that."

Buying Flowers for Someone Else.

- (2) "I'll send flowers to my mother-in-law every Christmas because she has everything else."
- (2) "Once in a while I'll take a single rose to one of my friends. It makes me feel good as well as making her feel good."

Receiving Flowers.

- (4) "I'd be tickled pink if Tom just brought me dandelions. Men can buy anything."
- (3) "Every once in a while Joe will bring home some mums or roses and I'll get all weepy eyed and that sort of thing."

- (2) "The kids were buying them (colored carnations) last week for their mothers (for Mother's Day). My kids brought me six all different colors, and they were all bright colors. But what mother would turn down flowers from her kids."

Daisies.

- (1) "I don't like them. To me daisies are just plain--ordinary."
- (3) "I see daisies coming into the house in some little kid's hand."
- (4) "It's a cheerful feeling of summer, sunshine, running through the fields, breezy . . . "
- (2) "Pure, simple, refreshing, springtime . . . "
- (2) "I picture a yellow kitchen, a sunny yellow kitchen."
- (3) "I used them in my wedding."

Mums.

- (4) (I think) "Keep them (mums) as long as you can because they're the last flower you'll see 'til spring."
- (4) "I like mums because of their warm colors--the oranges and golds."
- (3) "They're easy to arrange. They come in so many kinds and colors."
- (5) "Mums last a long time."

- (3) "I don't really care for mums because mums--everybody has mums. I like something that's different."
- (1) "That is the one think wrong with mums--they make such a mess of the water."
- (3) "Sometimes I'll ask if the mum will make it outside, and they'll (the florist) say sure--sure. But they don't, (make it outside)."

Mum Types

Incurved.

- (10) "I have a good feeling about them because they bring back memories of high school football games."
- (2) "Sunshine--sunburst."
- (4) "It's stocky--more masculine."

Daisy.

- (5) "I would like it because it looks like a daisy, and I happen to like daisies. It's a spring-fresh--clean type flower."
- (2) "First time around I'd buy one (daisy mum) just because it was new."
- (2) "It looks feminine, like you should use it in a wedding shower or baby shower."
- (2) "I would honestly expect to pay more for it (daisy mum) because it's unusual."
- (3) "A mum's not supposed to have an eye in the center of it like a daisy."

Decorative.

- (3) "That's (the decorative) what a mum should look like."
- (2) "It looks like summer--wholesome."

Spider.

- (3) (Spider mums) "Remind me of fireworks on the fourth of July."
- (2) "It's reaching out."
- (1) "It looks like it's got little fingers."
- (3) "Reminds me of oriental. It's (spider mums) sophistocated."
- (4) "I like the unusual."

Feathered Decorative.

- (3) "It was all shrivelled. It looked like it was dying."
- (2) "That mum looks too scraggly. When you get close it looks torn."
- (1) "I think it's more exotic than scraggly. It's light and airy."

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