



# Tailoring Cooperative Extension programs to serve home gardeners

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***A survey of households in San Diego County suggests that Cooperative Extension could most effectively deliver its university-based information to home gardeners through nurseries and similar professional sources rather than directly. Gardeners preferred those information sources for their convenience.***

Strong, consistent urban growth in southern California has spurred new home construction and increased the area under intensive horticultural management. One outcome of this urban expansion is a greater demand on Cooperative Extension for home gardening information. This situation is not surprising, since gardening is

perennially popular as an outdoor leisure activity.

In determining needs for home-gardening education services from Cooperative Extension, it is necessary to know more about the target audience—its demographics, gardening activities, information needs, and sources used. San Diego County is typical of the region in suburban development and urban growth, and the city of San Diego recently became the state's second largest in population. We therefore selected San Diego County for a pilot survey of home gardening interests, gathering initial data to: (1) characterize and identify the type of people who garden; (2) determine the nature of their gardening activity; (3) identify which sources are used to obtain gardening information and determine their adequacy; (4) identify methods Cooperative Extension can use to most effectively conduct educational gardening programs; (5) identify specific gardening problems and educational needs; and (6) determine whether Master Gardeners can effectively carry out a survey.

## Sampling methods

The survey was designed as a questionnaire to be administered by Master Gardener volunteers by telephone. The optimum sample size was to be 400 adult (18 years or older) respondents who were the active gardeners in their household. From a computer-generated random sample of county telephone numbers, approximately 1,400 calls were placed, and the final sample size for analysis was 337.

A team of Master Gardener volunteers conducted the interviews from late spring to early summer, proceeding through the list until a satisfactory sample size was obtained. They telephoned from their homes on evenings or weekends to reduce bias in the sample against respondents employed weekdays. There was some bias in the survey, because in a very few instances potential respondents and interviewers encountered a serious language barrier. In those cases, the volunteer skipped the respondent and went to the next number.

The telephone conversation began with a brief introduction by the interviewer, followed by a request to talk with the adult in the home who did the most gardening. The interviewer then asked that person a series of largely open-ended and check-off questions. If the appropriate person was not available, an appointment was set to call again. If no one gardened in the household, it was noted, and several demographic and socio-economic questions were asked.

## Who gardens

Two-thirds (66.8%) of the households surveyed considered themselves to be gar-

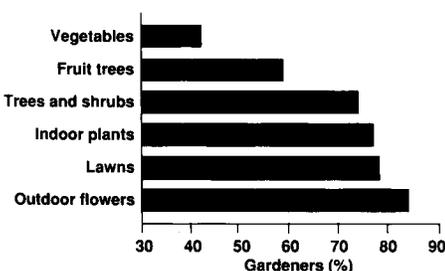


Fig. 1. Care of outdoor flowers was the gardening activity most widely reported by respondents to the survey.

**TABLE 1. Most used gardening information sources, San Diego County**

Source	Gardeners %
Nurseries, other professionals	22
Magazines	21
Newspapers	20
Books	16
Friends, neighbors, relatives	8
Television	6
UC Cooperative Extension	2

dening households. The majority of gardeners (53%) reported household income to be between \$15,000 and \$40,000, and 76% lived in a single-family dwelling. About 40% indicated that there was more than one active adult gardener.

Gardeners tended to be female (70%), while the ethnic mix was heavily dominated by whites. Ethnic minority gardeners constituted 15.9% of the gardening respondents. The total gardening and nongardening sample did not accurately reflect the census-based ethnic mix of the community, however, since the Asian and Hispanic groups were greatly underrepresented. This discrepancy was probably aggravated by the sampling bias caused by language barriers.

### Gardening activity

Responses of gardeners indicate a range in enjoyment of gardening. Most of them (60%) enjoyed their activity "very much," while 16% enjoyed gardening only "a little" or "not at all." The most widely pursued household gardening activities were centered, in descending order, on outdoor flower gardening, lawn care, indoor plant care, care of trees and shrubs, fruit tree culture, and vegetable gardening (fig. 1). Of the several other areas of activity reported, none exceeded 7% of the respondents. Interestingly, 10% of the households had someone outside the home care for their lawns.

The average amount of time spent gardening per week was about 7 hours. The median was just over 4 hours per week. Total gardening experience averaged 19 years, with an average of 15 years' experience specifically in San Diego County. Exactly one-third had been gardening 5 years or less in the area.

### Gardening information sources

Sources reportedly used most often were nursery operators or similar professionals, magazines, newspapers, and books (table 1). Friends, neighbors, and relatives were reported only by 8% and Cooperative Extension by only 2% of gardeners.

The same top four sources were also indicated as those that were liked the most. In this regard, Cooperative Extension was reported by only 5% of those surveyed, while friends, neighbors, and relatives were at 10%.

The fact that the preferred source was convenient and easy to use was given most often as the reason respondents preferred it. Attributes such as being "relevant and current" or "knowledgeable" were reported only one-half as often.

### Educational methods

When gardeners were asked if they would rent Cooperative Extension videotapes,

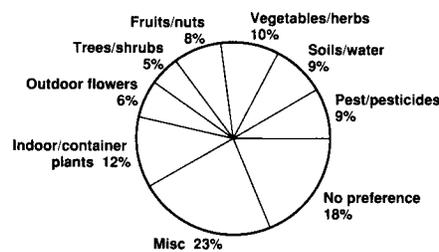


Fig. 2. Information needs specified by gardeners surveyed.

26% answered "yes," 50% "no," and 24% "maybe." Similarly, 20% said "yes," 42% "no," and 38% "maybe" when asked if they would subscribe to a Cooperative Extension newsletter on gardening. For each situation, the "maybe's" needed more specific information about price and content before a firm decision could be reached.

In contrast, gardeners responded more favorably to the possibility of an Extension-produced television program on home gardening. Exactly 50% would watch one, and 23% would not. The "maybe's" (27%) needed to know more about the timing of the broadcast, its quality and content, and what shows would be airing simultaneously.

The use of some existing local Cooperative Extension information sources was also investigated. Of the gardeners, 13% had used Extension publications, 7% had talked with a farm advisor, 5% had talked with a Master Gardener volunteer, and 4% had used Teletip recorded messages. Surprisingly, 46% said they read the local advisor's gardening column in the Sunday paper.

### Information needs

Respondents said they would like more information on 18 categories of subjects (fig. 2). The most frequently named areas were indoor and container plants, vegetables and herbs, soil and water management, pest management and pesticides, fruits and nuts, and outdoor flowers. All other response categories were indicated by less than 5% of those surveyed.

### Conclusions

The use of trained volunteers to conduct a county-wide survey appears to be an effective, low-cost means of gathering important program-planning data. Information gathered by this survey provides important background data on home gardeners. While the results of this survey are similar to those from national surveys by other investigators, several differences are evident with important implications for Cooperative Extension program planning in regions like San Diego County. Most home gardeners in the San Diego area are white females living in single-family housing. One-third of them are relatively new to the area, but

most have several years of gardening experience. A majority tend to view gardening as an enjoyable avocation rather than as a necessary chore or an essential food-producing activity. This appears to be true for a wide range of income levels. A considerable amount of time is spent gardening each week with ornamental plants receiving most of the attention. There is a tendency for gardening households to have someone outside the home care for their lawns, however.

The survey results show that nursery operators and similar professionals are the primary information sources for gardeners. These findings disagree with those of national surveys, which have typically found that friends and neighbors are the primary information sources for gardeners.

Clearly, Cooperative Extension is not effective in relating its information directly to home gardeners and, based on Extension's current and anticipated future resources, it is not likely that this situation can be improved. Convenience is the most important attribute of an information source, and gardeners use and prefer nurseries and similar professionals as sources of information. Urban Cooperative Extension offices should thus focus their educational activities on those professional audiences so that they can extend University of California information to gardeners. Local political and fiscal supporters must be made aware that this method allows Extension to meet urban constituents' gardening information needs more effectively and efficiently and simultaneously to support local industry professionals.

It appears, however, that about 2% of the gardening households are likely to continue using Cooperative Extension as their primary information source. That 2% translates into tens of thousands of individual requests for information that must be handled by the county Cooperative Extension office. Effective information extender networks and Master Gardener volunteers should be considered as methods of addressing this demand.

If direct delivery of gardening information must be carried out, our results suggest that print media and television programming would be the most effective methods. The information extended should center on outdoor flower gardening, indoor and container plant care, vegetables and herbs, soil and water management, pest management, and fruits and nuts.

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