

Growing with Master Gardeners

James I. Grieshop

The program attracts more volunteers than can be trained.

Volunteers have always played important roles in Cooperative Extension educational programs—for example, as 4-H leaders, in homemaker clubs, and as cooperating farmers. This tradition is now continued and expanded through the two-year-old volunteer-based Master Gardener program.

The Master Gardener program trains local citizens in plant science and practical horticulture, usually in 50 hours of formal training. These people, in turn, volunteer to work under the supervision of local Extension personnel to extend information and improve their community. Master Gardeners have performed a wide variety of tasks: educational (programs in schools, libraries, and community garden sites; writing newspaper articles; appearing on TV and radio shows; disseminating information from the local Extension office); service (such as helping a Vietnamese refugee farm project to install a water system); community organization (developing a community garden); and administrative (coordinating development of newsletters, speaker's bureau, and clinics).

Development of the Master Gardener program was closely monitored during 1980 and



Volunteers agree that "personal satisfaction" is their main reward from the program.

1981. Several studies were designed to learn why individuals become and stay involved in this program. The results of this research aid in planning other similar programs and in im-

proving current activities. (Currently, new Cooperative Extension volunteer programs in home energy conservation, consumer economics, and human relations are being discussed.)

Some figures on participation in the 1980 and 1981 programs are given in table 1.

One study attempted to identify the expectations (or incentives) that motivate trainees to participate: Why do people volunteer? and Why will individuals spend large amounts of their time and personal resources to participate in a program from which they receive no money?

A questionnaire was completed by every Master Gardener trainee in both the 1980 and 1981 groups. The 13 questions focused on expectations each person might be predicted to bring to the program, ranging from the opportunity to receive training, to increasing their knowledge and skills in gardening, to fellowship with other trainees, to receiving a tax credit for the volunteer work. Each person was asked to respond to each of the 13 questions on a 6-point scale from 0 (not a factor) to 5 (most important).

By far, the single most important incentive for volunteers was the opportunity to increase their knowledge in the area of garden-

TABLE 1. Descriptive statistics: Master Gardener programs, 1980-1981

	1980*	1981†
Number of applicants	215	324
Number (and %) of trainees: total	95	183
Male	39 (41%)	77 (42%)
Female	56 (59%)	106 (58%)
White	78 (82%)	160 (87%)
Nonwhite	17 (18%)	23 (13%)
Number (and %) volunteers who completed program and were certified: total	86	175
Male	35 (41%)	74 (42%)
Female	51 (59%)	101 (58%)
White	73 (85%)	153 (87%)
Nonwhite	13 (15%)	22 (13%)
Number (and %) active certified volunteers (performed organized volunteer work)	69 (80%)	151 (86%)
Total (and average) hours worked by volunteers	5,275 (82)‡	9,741 (68)§
Total contacts made by volunteers	9,000‡	18,148§
Number (and %) 1980 volunteers who continued as certified volunteers in 1981	...	57 (64%)

*Data from four counties. †Data from eight counties. ‡Data from three counties. §Data from six counties.



Master Gardeners receive 50 hours of training in plant science and practical horticulture.

ing (table 2). Of the top six reasons for both years, the top three were the ability to (1) increase knowledge, (2) receive training, and (3) gain new skills. Other important reasons were that volunteers wanted to share their knowledge, gain personal satisfaction, and provide a service to their community. The frequency with which the remaining seven reasons were chosen dropped off fairly sharply after the first six.

Unlike results of other research done with volunteers, this study found that altruistic incentives, such as the chance to share knowledge or gain personal satisfaction, were much less important to Master Gardeners. These volunteers were more concrete in their expectations; they entered the program primarily to obtain knowledge and skills. Altruistic incentives, although important, were not on the same order of significance as they have been reported previously in the literature.

The purpose of the second study was to identify effects and benefits of participation in the program. Early in 1981, each volunteer who had completed the 1980 training and volunteer work in Sacramento and Riverside counties was asked to fill out a questionnaire. Of 72 Master Gardeners, 52 completed the questionnaire (table 3).

Questions were asked to determine whether participants had indeed gained new knowledge and skills, as they had expected. Over 90 percent of the respondents "strongly agreed" or "agreed" with the statement that they had gained new knowledge. Nearly 85 percent agreed that they had gained new gardening skills.

More than 60 percent had had previous training in gardening. Of these, 94 percent "strongly agreed" that the Master Gardener program was significantly better or better than this previous training. Most Master Gar-

deners also felt that the training had prepared them adequately for the volunteer work.

Master Gardeners were also asked about the impact of the actual volunteer work on their knowledge and skills. Over 96 percent felt that the volunteer work had been a means of gaining new knowledge in gardening, and over 80 percent agreed that volunteer work gave them new gardening skills.

More than two-thirds of these volunteers had a history of prior volunteer work, although no attempt was made to identify the particular type of work. Of those, 94 percent stated that the Master Gardener volunteer work was significantly better or better. In comparing this work with other uses of their free time, 90.4 percent reported that the Master Gardener efforts were significantly more rewarding, or at least more rewarding, than other ways they spent their free time.

Results also indicated that the volunteer work had been personally satisfying. Over 94 percent of the respondents "agreed" or "strongly agreed" that they had gained personal satisfaction from the program. Similarly, 94 percent felt that they had provided a valuable service by being Master Gardeners.

Involvement of the volunteers in the community has been a goal of the program. Over half of the respondents indicated that they had gained new skills and knowledge as a result of the training program and their volunteer work. Ninety-two percent "agreed" or "strongly agreed" that they had gained new knowledge or skills from being more active in their community. Probing even further, the questionnaire asked whether or not as a result of the program, they became more directly involved in their community. Nearly two-thirds of the total said that they had.

Data from other sources indicated that these volunteers, for the most part, had histories of community involvement. Before participating in this program, these volunteers had had an average of two community affiliations and 1.4 group affiliations. Results of these studies indicate that the goal of encouraging more involvement was reached. Almost 58 percent of the respondents said they had initiated independent volunteer work in their communities without depending upon the local farm advisor to organize it.

This conclusion is more dramatic when it is understood that nearly two-thirds of the volunteers responding reported they worked an average of 33 hours per week outside the home. Even with such a busy schedule, the program seems to have met the volunteers' expectations. Over 92 percent of those responding intended to continue their active involvement in the Master Gardener program



Volunteers frequently conduct community Master Gardener clinics.

TABLE 2. Reasons for participation by Master Gardeners, 1980-1981

Reasons To become a Master Gardener is important to me because:	Rank (and average score)*	
	1980	1981
I will be able to increase my knowledge in the area of gardening.	1 (4.64)	1 (4.69)
I will be able to gain new skills as a gardener.	2 (4.60)	6 (4.00)
I will have the opportunity to receive useful training.	3 (4.59)	2 (4.49)
I will be able to provide a service to other people in my community and/or neighborhood.	4 (4.26)	4 (4.17)
I will have the opportunity to share my knowledge with other gardeners.	5 (4.20)	5 (4.12)
I will gain a great deal of personal satisfaction.	6 (4.15)	3 (4.00)
I will be able to creatively use my free time.	7 (3.34)	7 (3.34)
I will be certified by the University of California Cooperative Extension.	8 (2.76)	9 (2.14)
I will receive free instruction and materials.	9 (1.93)	8 (2.39)
I will gain practical experience that can help me get a job.	10 (1.73)	10 (1.73)
I will become a part of the University of California.	11 (1.65)	12 (1.66)
I will be recognized by people in my community.	12 (1.19)	11 (1.72)
I can get a tax credit for my volunteer work.	13 (0.34)	13 (0.57)
	n = 95	n = 197

*Response scores ranged from a high of 5 (extremely important factor) to 0 (not a factor).

TABLE 3. Selected indicators of volunteer satisfaction with Master Gardener program.

Question	SA	A	D	SD	NA
	%	%	%	%	%
1. As a result of the Master Gardener training:					
a. I gained new knowledge in gardening	84.6	13.5	1.9	...	...
b. I gained new skills in gardening	59.6	25.0	11.5	1.9	1.9
c. I gained new knowledge in areas other than gardening	26.9	26.9	32.7	11.5	1.9
d. I gained new skills in areas other than gardening	15.4	23.1	25.0	25.0	11.5
e. I received adequate training for the volunteer work.	46.2	38.5	15.4	...	...
2. As a result of participation in Master Gardener volunteer work:					
a. I gained new knowledge in gardening	65.4	30.8	3.8	...	...
b. I gained new skills in gardening	44.2	36.5	13.5	5.8	...
c. I gained new knowledge in areas other than gardening	25.0	26.9	28.8	11.5	7.7
d. I gained new skills in areas other than gardening.	26.9	25.0	25.0	13.5	9.6
3. As a result of participating in Master Gardener program:					
a. I had adequate opportunity to share my knowledge with others	42.3	42.3	11.5	1.9	1.9
b. I experienced personal satisfaction	80.8	13.5	5.8	...	...
c. I provided a valuable community service	69.2	25.0	3.8	...	1.9
d. I believe my efforts were appreciated	73.1	26.9	...	...	...
e. I gained new knowledge and skills from being more active in my community	65.4	26.9	7.7	...	...
f. I became more involved in my community or neighborhood	28.8	32.7	26.9	3.8	7.7
4. Benefit of Master Gardener program					
a. Compared to other ways I have used my "free time," the Master Gardener program was significantly more rewarding.	48.1	42.3	9.6	...	....
b. Compared to previous volunteer work, the Master Gardener program was significantly more rewarding (n = 33)	30.3	63.6	6.1	...	...
c. I intend to continue my active involvement with the Master Gardener program in the future	75.0	17.3	1.9	3.8	1.9

NOTE: n = 52, except for question 4b (n = 33).
SA = strongly agree A = agree D = disagree SD = strongly disagree NA = not applicable

in the future.

Exchange system

This information is important in the design and implementation of future programs similar to the Master Gardener program. To be successful, as measured by the volunteers' involvement, a program must first deliver (or exchange) good, high-quality training that increases the individual's knowledge. It also has to meet the expectations of volunteers by giving them opportunities to show off their knowledge—to extend it into their community—and to socialize.

In exchange for these opportunities, volunteers will give incredible amounts of time and energy. The results of this system are clear. In 1980, over 80 percent of the volunteers who finished the training in California also completed their volunteer commitment of at least 50 hours of time during the year. The 1980 program participants in Sacramento and Riverside counties reported an average of 82 hours of volunteer work. In San Joaquin County, three 1980 participants averaged 91 hours of volunteer work. In this period they contacted, through their Extension education activities, over 1,700 individuals.

One advantage for use of volunteers by Extension is the multiplier effect. A volunteer, trained and supervised by an Extension advisor, "multiplies the effect" of that advisor. Advisors report that volunteers can easily answer at least 70 percent of the questions the advisors previously had to answer. Ten volunteers can have a substantial multiplier effect.

The 1980 volunteers who completed the aforementioned questionnaire were also asked to estimate the per hour dollar value of their time volunteered. The average for the 52 volunteers was \$8.33, with a range from \$3 to \$30 per hour. In comparison, the Governor's Office (California) for Citizen Involvement and Voluntary Action set their standard at \$5 per hour for all volunteers who work with the state government agencies, a figure which they felt was too low. These same questionnaire respondents also reported a total of 4,085 hours worked in an eight-month period for a total value of more than \$34,000.

The Master Gardener program has proved to be a highly popular means of extending the knowledge of the University of California to the public in rural, suburban, and urban areas. It attracts large numbers of applicants, many of whom, unfortunately, have not been able to join because of the limited number of available slots. The program has begun to demonstrate clearly that volunteers can serve as excellent educators at the local level.

James I. Grieshop is Specialist, Community Education Development, Cooperative Extension, University of California, Davis.