

Master Gardener Training Costs and Payback in Volunteer Hours

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SUMMARY. The Master Gardener (MG) program operates in conjunction with the cooperative extension service in most states. The training, management, and administration of these volunteers vary widely from state to state. This paper presents a 4-year analysis of the initial cost of training Minnesota MGs and their volunteer hours contributed to the Minnesota Extension Service. The average training cost was \$89/person (based on the total number of volunteers certified 2 years after the training) with an average of 59 (\$711 at \$12/h) and 40 (\$474) hours volunteered or paid back over the first and following years, respectively. In all years, hours volunteered exceeded program expectations of 50 hours the first year and 25 hours thereafter.

The Master Gardener (MG) program originated in the state of Washington in 1972 (Master Gardeners International, 1995) in response to an increase in consumer questions about environmental horticulture. As traditional extension educators or county agents attempted to teach growing metropolitan audiences, it became obvious that (usually) one person per county could not reach such large numbers of consumers. The idea of training volunteers with the name Master Gardener was born, and today most states participate in the program, usually administered through the cooperative extension service and land-grant university. Although some reports on the role of MGs (Barton, 1988; Pottorff and Brown, 1994) and their priorities (Relf and McDaniel, 1994) have been published, information on training costs are scant. Indeed, some states question the time investment for training MGs and the value and amount of volunteer time they contribute in return. With reduced federal, state, and county funding, some states have reduced their MG program; others offer the training only in certain counties. This paper addresses the following questions: What does it cost to train a MG? What is the payback in volunteer hours?



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Since its inception in Minnesota in 1977, the initial training, or core course, has been conducted by traditional face-to-face classroom teaching by university professors and extension specialists. The core course consists of 48 hours of instruction in the following topics: herbaceous plants, soils, basic botany, indoor gardening, home food production, living with wildlife, pesticide use and safety, plant pathology, diagnosis of plant problems, pruning trees and shrubs, woody plants, entomology, tree and shrub insects, best management practices for home landscape and turf, communication skills, and local (county) MG programs. Interactive television has been used at a few locations, but most classes are taught by traditional face-to-face classroom delivery.

Typically four, or occasionally five locations are selected from around the state as training sites each year. (One core course is always taught in the St. Paul–Minneapolis area and every other year in Rochester, the major metropolitan areas.) Clusters

(multicounty regions) request the core course and the State Master Gardener Advisory Board selects locations.

A faculty member in the Dept. of Horticultural Science acts as state MG coordinator as part of her position description as an extension horticulturist. A half-time program secretary keeps database records of volunteer efforts and supports the state office. In 1996, 1509 participants were active in the program in 83 of Minnesota's 87 counties. Each county has an extension educator or MG coordinator who administers the local county program, sometimes sharing that effort across a cluster of counties. Minnesota MGs are required to volunteer 50 hours the first year as interns and 25 hours each year thereafter to retain active status. To take the course, volunteers currently pay \$60, which covers class materials including publications, text, and name tag. For a much higher fee, Pro Hort participants can attend the same classes but have no volunteer obligation.

Costs of the core course (Table 1) are

Table 1. Minnesota Master Gardener (MG) core course training cost and volunteer hours, 1992–95.

Training location	Core course training costs ² (\$)	Certification		Hours 1992	Active 1993	Hours 1993	Active 1994	Hours 1994	Active 1995	Hours 1995	Active 1996	Total hours
		Interns	that year									
1992												
St. Paul	2129	128	103	7673	112	5897	6644	77	4968	58	25,182	
Park Rapids	5928	40	27	(7600) ^y	31	(4950)	24	(3525)	21	(3025)	17	(19,100)
St. Cloud	3942	34	22		32		28		23		20	
Total	11,999	202	152		175		141		121		95	(25,250) ^x
Per person	69											
1993												
St. Paul	2244	106	85			9544	93	7885	86	6514	64	23,943
St. James	4444	26	23			(8300)	25	(6100)	23	(4425)	23	(18,825)
Rochester	3469	49	35				44		41		38	
Moorhead	5190	32	23				30		27		23	(21,300)
Total	15,352	213	166				192		177		148	
Per person	80											
1994												
St. Paul	2361	85	74					10,583	82	7663	70	18,246
Willmar	3880	46	41					(8000)	43	(5500)	39	(13,500)
Cloquet	4432	45	36						45		42	
E. Grand Forks	6839	10	9						10		8	(18,600)
Total	17,512	186	160						180		159	
Per person	97											
1995												
St. Paul	1940	94	84							12,737	88	12,737
Alexandria	5473	54	45							(10,150)	53	(10,150)
Mora	5107	61	47								61	
Rochester	3906	41	27								40	(12,500)
Total	16,426	250	203								242	
Per person	68											

^aTotal/MG, based on \$40/h actual teaching time and travel hours, plus mileage costs @ 26¢/mile and, where applicable, \$50 overnight and \$25 food allowance.

^bExpected hours of those certified are in parentheses: 50 first year, 25 thereafter.

^cTotal hours if all interns who became certified and completed expected hours are in bold face type.

Table 2. Average Master Gardener volunteer hours per person per year, 1992–95.

Training year	Hours			
	1992	1993	1994	1995
1992	51 (50)	31 (25) ^z	47 (25)	41 (25)
1993		57 (50)	39 (25) ^z	37 (25)
1994			66 (50)	42 (25) ^z
1995				63 (50)

^zDoes not include the 50 initial hours for volunteers who take 2 years to complete certification.

calculated using \$40/hour (based on the average annual salary of \$78,000 for all faculty ranks at the Univ. of Minnesota as reported by the American Association of University Professors, 1996) of instructor's travel and actual teaching time, 26 cents mileage, \$50 lodging, and \$25 food costs. Carpooling occurred in some cases. Although the program involves additional ongoing costs such as extension educators' time in volunteer administration and management, the only costs considered in this report are the initial training costs that are covered by the state office and departmental budgets, as opposed to counties. Costs to develop slides and other teaching materials or other indirect administrative costs are not included.

Volunteer hours shown are actual hours that have been reported by participants in the program and kept in a database at the state MG office. The number of certified interns is the number that completed their hours the first year, as expected. Some volunteers take 2 years to complete their initial certification; however, by the end of the second year they are still expected to turn in 75 hours.

In all years, the total number of hours volunteered exceeded expectations (Table 2). Overall, from 1992 to 1995, the average hours volunteered the first year were 59.25, almost 20% above the expected 50 hours. The average hours volunteered in years two through four was 39.5 (25 hours/year is expected). These statewide results are from metropolitan, suburban, and rural counties. Although not all interns became certified,

those that volunteered did so well beyond the program minimums, thus, the total number of volunteer hours nearly met or exceeded the total program goals.

Twelve dollars per hour has been used to denote the value of volunteer time (Minnesota Office of Citizenship and Volunteer Services, 1994). The \$11,999 investment in training in 1992 was paid back with 25,182 volunteer hours valued at \$302,184 by the end of 1995 (Table 3). This shows a training cost of 48 cents/hour of volunteer time. Figures for more recent years are as follows: 64 cents/hour for 1993 training, (training costs divided by total hours volunteered), 95 cents/hour for 1994 and \$1.28/hour in 1995. For each \$1 of training cost, the volunteer gave back \$9.70 or 0.77 hours in volunteer time the first year. After 4 years, the amount was \$25.18, or 2.09 volunteer hours for each \$1 spent in training. The average annual volunteer commitment was \$711, ($59.25 \times \12) for the first year volunteers are in the program and \$474, ($39.5 \times \12) for each year thereafter.

These figures show the initial cost of training MGs is quite low when one considers the number of hours a volunteer typically will contribute to the extension service and the community. Based on this analysis, the MG program is a cost-efficient means of training volunteers and increasing the impact of cooperative extension in the community.

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Table 3. Value of volunteer time compared to training costs.

Training year	Cumulative total value of volunteer hours, @\$12/h	Volunteer hours/\$ of training cost	Value of volunteer work/\$ of training (\$)
1992	302,184	2.09	25.18
1993	287,316	1.55	18.71
1994	218,952	1.04	12.50
1995	160,452	0.77	9.70
Mean		1.36	16.52