

HOME COMPOST EDUCATION REPORT 1999-2000

Paul Vossen, Nancy Kissam, Lori Reid, Ellen Brantley, and Susan Badley

Program Goal

To reduce landfill inputs by teaching home composting through volunteer Master Gardeners (MG) at established workshop sites, public events, and in schools.

- Provide home composting information via direct contact with 1,000-5,000 county residents at selected public events including 25 days at major events
- Provide at least 10 compost workshops at demonstration sites
- Distribute 10,000 educational brochures
- Provide 40 school classroom presentations plus worm composting materials
- Provide a resource desk and phone line to answer composting questions
- Design, print, and distribute 15,000 promotional flyers for a \$ 20 bin rebate program in coordination with the Sonoma County Waste Management Agency (SCWMA)
- Estimate landfill tonnage diversion based on survey data from 1994-97 and the number of participants in 1999-00

Background

Since 1993, the University of California Cooperative Extension (UCCE) has provided compost education for county residents with funding from the Sonoma County Waste Management Agency (SCWMA).

In the last 6 years the program reached 2,147 residents through compost workshops and clinics. Through this contact method we developed a database of participants for survey purposes. In the last five years, the program reached 70,220 other residents with composting brochures, bin distribution programs, educational booths at large public events, library talks, farmers market booths, and seminars. Each year more people are reached by concentrating efforts at educational booths that are well attended public events.

Three years of survey results (1994-97) documenting home composting by trained workshop and educational event participants provide the benchmark for tonnage diversion. Almost

70% of workshop contacts began or increased composting and reduced their input into the waste stream by 19.5 gallons per household per month.

The Compost Education Program is operated primarily by volunteers. The budget reflects maintenance of current educational efforts and a refocus to expand contacts beyond workshops and clinics due to diminishing attendance at workshop sites. There are three unique aspects to this project.

1. Master Gardener (MG) volunteers are under the direction of the University of California Cooperative Extension (UCCE) and connected to UC-based research expertise.
2. Master Gardeners have a broad-based network of community projects and a reputation for providing practical science based information.
3. The volunteer nature of the program provides multiple in-person contacts for homeowners at a substantially lower cost compared to private contracting.

A part-time MG coordinator (40%) and a core group of 46 trained volunteers, under the direction of UCCE Horticulture Advisor, Paul Vossen, carried out the home compost education program this last year.

Summary of Objectives Achieved in 1999-00

Large Public Events

The Master Gardeners had booths at eight large public events (26 event days) in the county and provided information to 6,057 people. They distributed thousands of brochures and demonstrated home composting with display bins, compost piles, and worm boxes. They also helped people with questions about recycling their home refuse. The events, dates, and number of contacts are listed in Table 1. (See Appendix A - an example of promotional cards for the composting booth at the Sonoma County Fair, Herb Festival, and Harvest Fair).

Table 1. Master Gardener Program Home Composting Education at Large Events

EVENT	DATE	# OF CONTACTS
Sonoma County Fair	7-27 to 8-9 (14 days)	4,397
Herb Festival	9-18	200
Fall Home Show	9-25	47
Celtic Festival	9-25 & 26 (2 days)	97
Sonoma County Harvest Fair	10-1 to 10-3 (3days)	533
Spring Home Show	3-17 to 3-19 (3 days)	622
4-H Chicken - Que	5-7	86
Burbank Home & Gardens Exposition	6-17	75
TOTAL	26 Event Days	6,057



Master Gardener Compost Booth at the Harvest Fair

Other Educational Events:

The Master Gardeners presented information on composting at 234 small-scale events throughout the year. They distributed brochures, made short presentations on home composting and worm composting, and answered questions about starting a home compost pile for 4,366 people. The event dates and contact numbers are listed in Table 2. The farmers markets have booths where Master Gardeners provide information on plant culture, pest control and composting. The library series

events focus on a specific gardening topic and include information and handouts on home composting. Some of the library series talks focus on composting or worm composting. (See Appendix B – Promotional card for a Sonoma Library Series event on Worm Composting)

Table 2. Master Gardener Program Home Composting Education at Small Events

EVENT	DATE	# PEOPLE CONTACTED
21 Healdsburg Farmers Mkts.	5-6 to 9-25	222
29 Sebastopol Farmers Mkts.	5-7 to 11-21	778
82 Sonoma Farmers Mkts.	4-4 to 10-26 & Fridays all year	160 + 766
20 Santa Rosa Farmers Mkts.	5-13- to 9-18	636
21 Oakmont Farmers Mkts.	2-6 to 6-25	193
23 Petaluma Farmers Mkts.	5-27 to 10-30	651
TOTAL FARMERS MARKET CONTACTS		3,406
3 Healdsburg Library Series	10-30, 11-20, 2-5	111
11 Petaluma Library Series	9-18, 9-25, 10-9, 11-6, 11-13, 3-18, 3-25, 4-1, 4-8, 4-15, 5-6	306
9 Sonoma Library Series	10-23, 11-6, 11-20, 4-8, 4-15, 4-29, 5-13, 5-27, 6-3	91
6 Guerneville Library Series	7-10, 7-17, 8-21, 1-22, 2-19, 3-4,	67
3 Rincon Vly. Library Series	4-1, 4-8, 4-29	20
4 Harvest for the Hungry	8-7, 8-14, 8-21, 8-28	350
2 Windsor Library Series	5-13, 6-10	15
TOTAL LIBRARY SERIES CONTACTS		960

Workshops

The Master Gardeners conducted 13 composting workshops at established workshop sites and in outlying areas in Sonoma County. The dates of each workshop and attendees are listed below in Table 3. These are hands-on educational sessions where the participants actually build a compost pile and start a worm box. A total of 393 people attended these workshops (see Appendix C - an example of a workshop promotional card and Appendix D – workshop promotional flyer). Fliers and cards were distributed in nurseries, garden related businesses, and libraries.

Table 3. Master Gardener Home Compost Education Workshops

WORKSHOP LOCATION	DATE	# IN ATTENDANCE
Sunflower Comm. Garden	7-31	10
Windsor – Keiser Park	9-18	4
Seb. New Housing Dev.	10-9	8
Windsor – Keiser Park	10-9	2
LB Art & Garden Center	2-10	40
Windsor High School	3-30	31
Cotati Site	4-8	2
Windsor Keiser Park	4-15	4
Sonoma Boys & Girls Club	4-15	230
Harmony Farm Supply	5-20	15
Windsor – Keiser Park	5-20	4
Emerisa Gardens Nursery	6-4	13
School Garden Workshop	6-24	30
TOTAL		393



UC - Master Gardener compost trailer used to transport composting demonstration materials to remote sites



Sandwich board used by Master Gardeners to announce compost demonstrations

School Presentations: Master Gardeners made 41 school presentations in classrooms of 15 - 30 students; a total of 746 students were contacted (see Table 4). The demonstrations were for the length of a normal class period. They were done to develop an environmental awareness and to encourage the recycling of organic waste products from the classroom and school. Most presentations included the establishment of a worm box in the classroom. Fliers were sent home with students to encourage parents to compost and recycle. The Argus-Courier ran an article about the program (9-22-99). See Appendix E – newspaper article).

Table 4. Master Gardener School Presentations

SCHOOL	DATE
Petaluma Cooperative	9-9
Hillcrest	10-5
Grant Elementary	10-19
Grant Elementary	10-19
Alexander Valley	10-20
Alexander Valley	10-20
Sonoma Mountain	10-21
Sonoma Mountain	10-21
Miwok Valley	10-22
Miwok Valley	10-22
Cloverdale High	11-12
Cloverdale High	11-12
SR Jewish Comm. Ctr.	11-15
Bernard Eldridge	11-30
Flowery	12-7
Apple Blossom	1-25
Geyserville High	1-25
Penngrove	2-23
Penngrove	2-23
Olivet	3-15
McKinley	3-22
Alexander Valley	3-23
Alexander Valley	3-23
Fitch Mt.	3-23
Fitch Mt.	3-23
Boys & Girls Sonoma	4-20
Boys & Girls Sonoma	4-20
Redwood Christian	4-28
Redwood Christian	4-28
Oakgrove	5-4
Oakgrove	5-4
Kenwood	5-10
Flowery	5-10
Roseland	5-12
Roseland	5-12
Roseland	5-12
Petaluma Valley	5-18
McDowell	5-22
McDowell	5-22
Sonoma Mtn.	6-22
Sonoma Mtn.	6-22



Handful of "red-wiggler" worms



School student looking for worms during a classroom presentation

Educational Brochures: The Master Gardeners distributed 10,000 copies of educational brochures about home composting at events, workshops, and schools presentations. All of the educational brochures, other than the Shepherd's Guide, Worm Digest, and Composting Matters were developed by Master Gardeners and printed at Sonoma County Reprographics.

- *Recycling Tips For Gardeners*
- *Composting Matters*
- *Abono Natural*
- *Worm Composting*
- *Home Composting In Sonoma County*
- *Shephard's Home Composting Guide*
- *Worm Digest*
- *Putting Worms To Work And Keeping Them Happy*



Examples of publications given as handouts

Bin Rebate Program

Together with the Waste Management Agency we developed a rebate program that provided a financial incentive for people to obtain a compost bin. This was an idea designed to increase home composting among county residents by encouraging them to purchase and use a backyard compost bin. The Master Gardener Composting Program printed and distributed 15,000 promotional fliers about the rebate program indicating where people could buy a bin. (See Appendix F – Rebate flyer). A full-page promotion of the rebate program also appeared in the Sonoma County Reporter twice.

After the purchase, the receipt (proof of purchase) plus a coupon with name, address, and phone number was sent to the SCWMA to receive a rebate of \$20. Only 41 people participated in the 9 month long (August – April) rebate program. In some cases, the promotional flyers may have encouraged people to buy a bin, but fail to send in the receipt for redemption.

The bin rebate program was not as successful as anticipated.

Conclusions & Recommendations

The home composting program has been teaching backyard composting to homeowners, apartment dwellers, and school children for seven years. Every year we evaluate the program and make changes to meet the goal of reaching the largest number of people in the least time consuming and most rewarding ways for the participants and the Master Gardener volunteer trainers. The group is committed to including composting information as an essential part of gardening. Last year 47 Master Gardeners participated in the home compost educational effort as trainers.

Home composting education has become an integral part of the Master Gardener program because we have been doing it for several years and the volunteers are committed to it. If the

Sonoma County Waste Management Agency continues to fund the program for coordination support, it could continue indefinitely. The Master Gardeners are proud of the success of the home composting program. A composting curriculum has been added to the core-training program for all new Master Gardeners, new trainers are added each year, good publications and handouts have been developed, and there is good coordination of activities. It is also seen as a success, because surveys have documented that most of the people who are trained in home composting become home composters and ultimately reduce input into the landfill.

The suburban and country setting of Sonoma County with large home yards potentially allows home composting to play a significant role in waste diversion and plays a significant role in "tuning consumers in" to their contribution to the waste stream. A recent study of home composting in New York City conducted by the botanical gardens and Department of Sanitation (DOS) determined that while home composting did not make a significant impact on the waste stream of New York City (city lots and apartments) it did have a very positive effect. They found that composters thought more about their waste in general, including re-use, recycling, and waste prevention.

A concentration of efforts toward providing information at events where there are already people present has greatly increased our numbers of contacts this last year. Contacts in 1999-2000 were more than double the contacts in 1998-99 (5,223 compared to 10,816). We also feel that the audience that is being reached (general public - not necessarily interested in composting) are precisely the people that need to change their waste management habits in order to significantly effect the waste stream in the long term. We envision the day when home composting is as common as the recycling of cans, bottles, paper, plastic, and cardboard.

Future Considerations for the Project

Our recommendation is to continue the countywide home compost education program delivered through the University of California Cooperative Extension volunteer Master Gardeners. The focus should be to provide short presentations and handout materials to county residents to encourage home composting and reduction of compostable materials entering the landfill plus the side effect of increasing overall awareness of the waste stream. The program is flexible enough to include special efforts and new ideas for increasing the numbers of contacts or improving the volume of materials diverted from the waste stream.

The bin rebate program should be discontinued or modified, because of low participation. The 41 participants last year should be contacted with a survey to help indicate the degree to which they are now composting at home. We continue to hand out information on compost bins and locations that sell bins even though the rebate is finished.

In order to continue reaching larger numbers of people, booths should be set up at appropriate events to inform people about home composting. It is more efficient to go where the people are rather than try to attract them to a workshop to teach them how to compost. Information delivered in short talks accompanied by handouts reach the largest numbers of people. At some point the workshops might be completely discontinued.

Attendance at permanent workshop sites is too low in proportion to the effort and cost to reach them. The number of compost workshops should be further reduced in order to allow for a greater focus of resources on Sonoma County events where large numbers of people are already gathered. A tally of contact numbers, without signatures, from all events should be kept.

Continuation of training sessions in school classrooms is recommended. Parent participation should be encouraged by sending information materials home with school children.

There is no need for additional equipment purchase, but maintenance of current equipment at sites is required if workshops are continued there. This next year's budget will provide for printing of essential educational materials and operating supplies. The part-time program coordinator position is essential in providing the volunteer training, support, and supervision to conduct the program.

Continuation of this project will maintain the backyard compost diversion effort by county residents and fill the need for information about home composting. This project will continue to serve as a model for other counties interested in the reduction of their waste stream.

Summary of Project Failures

The main problem faced in the Composting Program for FY 1999-00 was the lack of attendance at some workshops. Low attendance can be caused by many factors including insufficient publicity, poor weather, or inadequate interest in the subject matter. We feel that the quality of the workshops is excellent based on feedback from the participants.

This year we reduced the number of workshops with the idea that one workshop held at each site in the spring and one in the fall would avoid rainy winter weather. With the existing four sites and the mobile trailer for outlying areas a total of thirteen (13) workshops were adequately promoted. Attendance was better than last year (FY 98-99), but still discouraging and could improve. The one very well attended workshop at the Boys and Girls Club in Sonoma was a captive audience of students already there.

The bin rebate program did not reach expectations; only 41 people participated.

Tonnage Diversion Estimates

The home composting program had direct contact with 10,816 people in FY 1999-2000 at eight large events (26 days); 234 farmers markets and library presentations; and 13 workshops. An additional estimated 18,000 were reached through educational brochures, the Master Gardener desk, rebate flyer, and through school presentations. Total contacts for the year were 28,816, based on tallies from those events and brochures handed out. Calculations for the tonnage diversion estimates are based on direct contacts only.



Logo on the side of the Compost Trailer

University of California surveys in FY's 1994-95, 1995-96, and 1996-97 strongly indicated that close to 70% of the people contacted started or increased home composting. On the average they reduced their garbage input of kitchen scraps by 2.5 gallons / household / month and yard waste by 13.2 gallons / household / month. In FY 1996-97 surveyed home composters also indicated that they diverted 37.3 gallons per month from the curbside organic waste pick up program due to home composting. Based on these figures the diversion for FY 1999-00 was:

- **10,816 people** X 70% = 7,570 beginning or increasing home composting
- **Kitchen scraps*** diverted = 54.9 tons per month = 659.8 tons per year = 1,126.9 cubic yards per year
- **Yard waste*** diverted = 209.8 tons per month = 2,518.1 tons per year = 5,938.9 cubic yards per year
- **Curbside pick-up** diverted = 592.9 tons per month = 7,114.8 tons per year = 16,780.2 cubic yards per year.
- **TOTAL DIVERTED** = 10,292.7 tons per year = 23,846.0 yd³ per year

* *Weight and volume calculations for kitchen scraps are based on 70% moisture (5.8 lbs./gallon)(1,171 lbs./yd³). Weight and volume calculations for yard waste are based on 50% moisture (4.2 lbs./gallon)(848 lbs./yd³).*

Paul Vossen
University of California
Cooperative Extension
2604 Ventura Ave.
Santa Rosa, CA 95403
(707) 565-2621

pmvossen@ucdavis.edu