

MANTIS ADOPT A SCHOOL GARDEN® PROGRAM Evaluation Summary – 2009



The National Gardening Association surveyed the 2009 Mantis Adopt a School Garden® Program recipients to capture quantitative and qualitative data on the award's impact. The following is a summary of results.

Grant package: ASG Garden Kit & Mantis Tiller/Cultivator
(value approximately \$1,000)

Number of recipients: 10

Number of evaluation respondents: 10

Following is a summary of the highlights from those responses.

Number of participants in Mantis award-winning programs:

Age 2-5 (preschool-K).....	455
Ages 6-8 (grades 1-3).....	773
Ages 9-11 (grades 4-6).....	633
Ages 12-13 (grades 7-8).....	2
Ages 14-18 (grades 9-12).....	121
Adults (18+)	57
Total participants	2,041

Demographic information:

Anglo American	60%
African American	22%
Latino	10%
Other	5%
Asian.....	3%
Male.....	53%
Female.....	47%

Eligible for free or reduced lunch program38%

Hours per week a participant was involved in gardening activities:

Average	2 hours/week
Range.....	1/2 to 10 hours/week

Months of the year respondents conducted gardening programs:

Average.....	4 months/year
Range.....	2 to 7 months/year

Program continuation:

Respondents indicating they plan to continue their program next year100%

Type of audience participating in programs:

In-school	80%
Special Needs	50%
Gifted & Talented	20%
After-school.....	10%
Preschool/Head Start	10%
Intergenerational	10%

Location of winners responding:

Suburban	60%
Urban.....	40%

Type of organizations responding:

Public school.....	70%
Charter school	20%
Nonprofit agency	10%

Continued on page 2

My students loved this gardening project! Few had experienced a garden before the program and were amazed by the earthworms and insects in the soil. Some hadn't even known that plants need nutrients and water to survive. As students worked in our garden, passing school administrators offered comments such as, "what a wonderful job you're doing," which made the students very proud of their hard work.

— Valli Dasika
Olney High School-West, PA



Continued from page 2

Program leaders noted participant improvements in these characteristics:

Environmental attitudes	100%
Attitude towards school	100%
Community spirit	100%
Self-confidence	90%
Leadership skills.....	90%
Volunteerism	90%
Social skills	80%
Nutritional attitudes.....	80%
Motor skills	60%
Scholastic achievement.....	50%

Reported evidence documenting the effectiveness of gardening programs:

Positive feedback from participants.....	90%
Positive feedback from family members	90%
Positive feedback from administrators.....	90%
Positive community feedback	70%
Awards and recognition	50%
Funding and donations	40%
Positive survey results	40%
Decreased disciplinary actions..	30%
Improved attendance rates	10%
Improved test scores.....	10%

Subjects taught through programs:

Science	100%
Math.....	80%
Community service.....	60%
Health and nutrition	50%
Social studies.....	40%
Physical education.....	30%
Art	30%
Intra/interpersonal relationships	20%
English	20%
Cultural studies/issues	20%
Interdisciplinary	20%

Percentage of time spent on instructional techniques (note: this is the average of all the responses for each technique):

Adult-led investigation/ hands-on activities	38.5%
Student-led investigation/ hands-on activities.....	26.5%
Collaborative project work	21%
Lecture	16.5%
Independent learning.....	5.5%

Source of curriculum used by gardening programs:

Combined materials from numerous sources	50%
State education department.....	40%
School district	40%
Original material.....	30%
Nonprofit organization (such as NGA or Life Lab)	20%
Cooperative Extension (such as 4-H or JMG)	10%

Compliance with State and National Education Standards:

Respondents who connected their gardening program to State and National Education Standards	90%
---	-----

Importance of linking to the standards for respondents:

Mandatory	0%
Very important.....	40%
Important.....	30%
Somewhat important.....	10%
Not important.....	10%
N/A.....	10%

Approximate amount of money spent on programs:

Less than \$250.....	30%
\$251to \$500	20%
\$501 to \$1,000	20%
\$1,001 to \$1,500	10%
\$1,501 to \$2,000	10%
\$2,001 to \$2,500	10%



This was our first vegetable garden. The students loved tending the plants and eating the fresh veggies. They were proud of their work and learned about healthy eating, good nutrition, and caring for the environment. 2nd graders prepared the soil and oversaw garden cleanup and composting; 1st graders planted the seeds; 3rd graders watered; and 4th graders harvested the produce. Everyone (students and staff) enjoyed our delicious fresh veggie salad!

— Nancy Nadel
 Forest Oak Elementary, DE

Continued on page 3



Continued from page 2

Approximate value of in-kind donations to programs:

Less than \$250	40%
\$251 to \$500	10%
\$501 to \$1,000	40%
\$1,001 to \$1,500	10%

Percentage of funding programs received from other sources (note: this is the average of all the responses for each source):

Grants	60%
Parent or volunteer organizations	19.5%
Instructor’s pocket.....	15.5%
Donations	7.5%
Fundraising	4%
School or school district funds.....	3.5%

Publicity about the programs:

Newsletter articles	14
Newspaper articles.....	6
Web site features.....	7

Community interaction and additional impacts noted by respondents:

Students became very inquisitive. Some shared their own home gardening experiences, while others expressed a desire to have a garden at home. Students closely observed how the plants developed and cared for them daily without reminders. They were thrilled to take plants home over the summer and shared pictures of their plant’s progress.

— Sandra Ostrander, Culbertson Elementary School, PA



Our school population has been quite apathetic about environmental issues. But the gardening program showed students that they really *can* make a difference and have an impact on the attitudes of others.

— Angela Iovine, Kensington Culinary Arts High School, PA



The Discovery Curriculum and garden at Wissahickon has nurtured a student body that regularly demonstrates enthusiasm for learning, responsible and respectful behavior, and academic success. The school’s Discovery teacher works collaboratively with each classroom teacher to design units that complement the core curriculum by using elements of the natural world to connect learning across disciplines and grade levels. This approach gives students ownership of the project and provides opportunities for in-depth explorations of real life problems. Students comments include: ‘I’m an eggplant scout’ and ‘Parsnips are my favorite vegetable now and I’m going to tell my daddy to eat them!’

— Juanita Nyce, Wissahickon Charter School, PA

Continued on page 4

Continued from page 3

This 4th grade program has impact at the student, district, and county levels. As a result of this year's program: other grades and school groups want to work in the garden; more parents are volunteering; more families are gardening and composting at home; and the PTO is developing an after-school garden club.

This year students willingly worked out ways to share popular tasks and intervene in disputes between classmates. Their confidence increased, they handled tools more safely, and were more responsible for cleaning up. School board members helped in the garden, posted garden news on the Web site, worked to develop a high school mentoring project that will use garden produce in the schools' cafeterias, and worked to start gardens and composting at 2 other elementary schools. As a Master Gardener I spoke at those schools and others outside my district, worked to develop relationships with other school gardening programs, and with a local CSA farm that has offered to help students plan next year's garden in the spring and then purchase the produce for resale at the farm's roadside stand. It's all so exciting!
— Melanie Baer, Starkweather Elementary, PA



The garden has provided opportunities to work on nutrition and start cooking projects. Taking role of "Chef Trudy," a school assistant taught students to prepare many nutritious dishes, including sliced tomatoes with basil. Making and tasting these recipes was a new



experience for some students (and some staff members).

The garden has linked our school with both 4-H and Master Gardener groups. We participated in the a county 4-H fair and won blue ribbons for our garden produce. An in-house satisfaction survey was overwhelmingly positive. Teaching staff reported, "The children are motivated in the garden" and "I use the garden as a conversation starter for speech therapy." Students reported, "Gardens grow fast," "I love colors (in the garden)," "Plants need water to grow," and "I like getting my hands dirty." A school administrator said, "The garden has provided wonderful opportunities for students and staff."

The garden is becoming entrenched in our cur-

riculum. We post a weekly garden photograph on our Web site and at the garden gate as an I SPY game and encourage students (and staff) to find the photo's actual location. Students love watering the garden, use binoculars to investigate butterflies and birds, and keep a log of sightings.

— Linda McHugh, Archbishop Damiano School, NJ

