



**COMMUNITY
GREENING
REVIEW**

AMERICAN
COMMUNITY
GARDENING
ASSOCIATION

Gardening in the Schoolyards:

**It's a math, social studies, science,
reading, art . . . kind of thing**

Gardening at School

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ON THE COVER
Students and
a mentor at
Martin Luther King Jr.
Middle School
in Berkeley, California,
harvest vegetables
from the
Edible Schoolyard,
one of the best-
known school gardens.

Photograph:
Ene Osteras-Constable

I often wonder what I would be doing if I hadn't had the good fortune to discover horticulture, thanks to my parents and grandparents. I remember vividly my grandmother's roses in her postage-stamp backyard in Queens, New York, and how my grandfather pronounced "compost" in his Scottish brogue. I became an expert at saving marigold seeds. Thankfully, they started me on the easy ones.

With the exception of a few programs started by some visionary people, gardening was something we learned at home. Who would have thought a garden was anything more than a necessity for the war effort or to feed families? What if gardening wasn't passed to you from an adult relative or family friend? What about those "natural born gardeners" who never get the chance to plant a seed because they never had the chance to dig in the soil or plant a seed?

With this issue of your *Community Greening Review*, we focus on gardening with schools, a perfect vehicle for introducing gardening as a lifelong hobby and source of inspiration, and so much more. Inspired by ACGA's increasing number of "calls for help" and the recent high-profile of successful programs, many of which are featured in this review, writer Pam Kirschbaum gives us direction about how to proceed whether you're providing modest technical assistance or starting a program for your entire school system.

All of us can relate to a frantic call from a teacher to help with a garden unit, in May. Workshops at ACGA conferences are standing-room-only if presenters focus on schools or kids. And what would your local community garden be without the curious neighborhood children happily filling the wheel barrow with compost? As you'll read in the feature, school gardening is more than just an activity to get the kids outside or to grow a present for mom on Mother's Day. After reading these interviews with practitioners, TA providers and researchers, we hope you'll extract some "best management practices" on which to develop your own programs or policies for successful partnerships.

School gardens will certainly be a feature of workshops and tours as ACGA descends on Philadelphia for our annual conference September 30 – October 3. Ten years after the unforgettable "The Beet Goes On" conference, we return to Philly and our host organizations who work to bring Philadelphians the largest greening program in the country. At press time, our host committee and longtime members were furiously pulling together a conference only fitting for ACGA's 20th anniversary. The ACGA Board looks forward to this milestone and encourages you all to come to Philadelphia for a very special conference and celebration.

Yours for a Garden In Every School,
Tom Tyler
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Community Greening Review provides a forum where professionals, volunteers, and supporters working on community gardening, greening, and open space issues can relate ideas, research, opinions, suggestions, and experiences.

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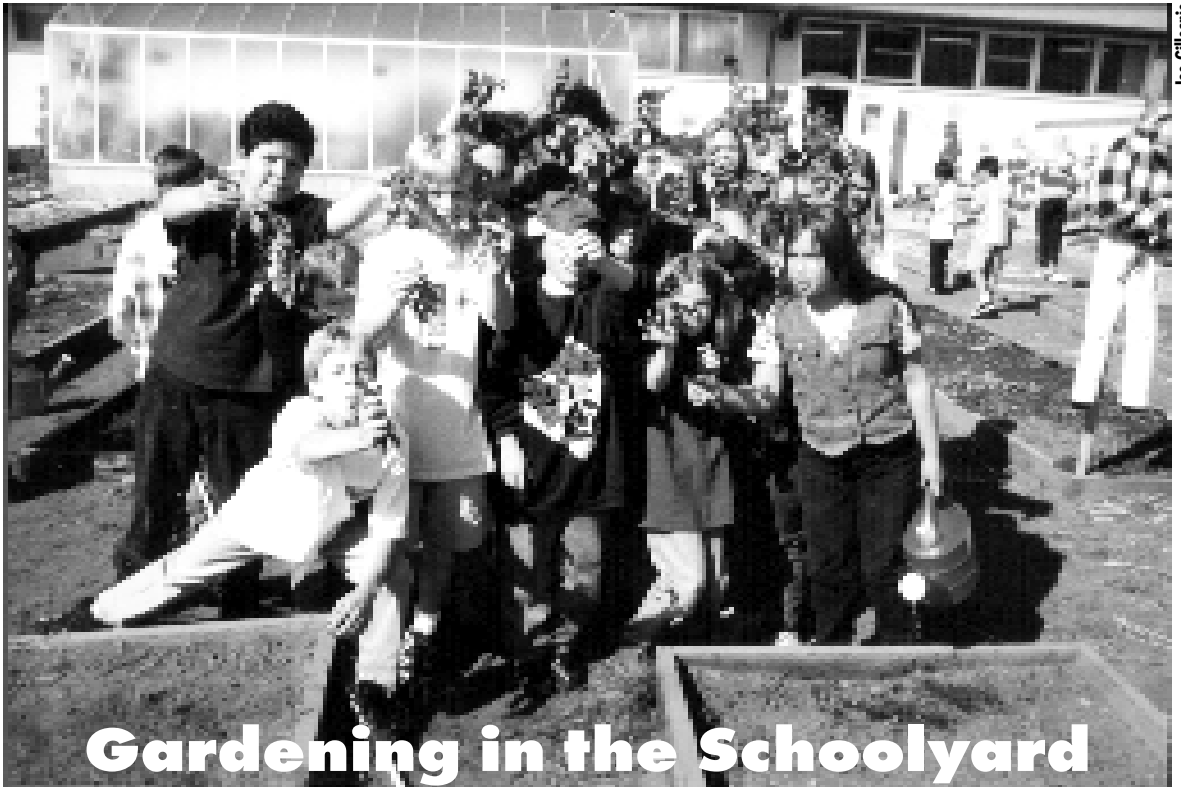
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EDITOR
 Pamela R. Kirschbaum



Sixth graders at Crescent Elk Middle School, Crescent, City, California, proudly show what they have nurtured and harvested.

Gardening in the Schoolyard

It's a math, social studies, science, reading, art . . . kind of thing

Third graders studied the bees buzzing around the flowers. Fifth graders planted grass. Science classes learned about compost. And the Garden of Love, named by students at P.S. 76 in Harlem, with its crab apple and mulberry trees, its berries and greens and worms, offered a bit of hope in a dense urban neighborhood.

That was before November 2 when bulldozers rolled in, destroyed the garden, and left tire tracks, a few broken flowerpots and rubble—the remains of six years' work and almost \$30,000 in grants and donations.

While many New York City gardens on vacant lots, such as the Garden of Love, are beset with uncertainty and woes, across much of the country school gardens of one kind or another are thriving.

California's "A Garden in Every School" program is trying to keep up with the interest in building gardens and the need for curricular materials. Teachers, parents, community gardeners and neighborhood helpers throughout the nation are creating and tending living classrooms and finding imaginative ways to make them part of the curriculum, sometimes year-round. School gardens are, in fact, thriving in New York as well, if they are on protected school grounds.

Launching and integrating gardens into everyday school life, fueled by the inclination towards hands-on learning, the concern about children's diets, and the promotion of environmental stewardship, is clearly a trend—despite the nationwide preoccupation of public school administrators with standards of learning and accountability and the need for gardening to in-

corporate the standards. One indication of the extent of interest is the competition for the \$750 seed-and-equipment grants from the National Gardening Association: 2,000 applications for its 300 annual grants to school and youth gardens. And in 1998 the National Wildlife Federation fielded more than 3,000 calls about its schoolyard habitats project, a 1995 offshoot. Because of the great interest by schools, in 1995 schoolyard habitats became a separate project in the long-standing backyard wildlife habitat program. The federation has certified more than half of the 700-plus schoolyard habitats in the past three years.

"Mainly," notes Mary Ann Patterson of the American Horticulture Society, "you have a whole generation of kids who are not going to enjoy the exploration of green spaces that the baby boomers [and older

**BY
PAMELA R.
KIRSCHBAUM**

generations] enjoyed. We boomers said, 'Bye Mom, see you at dinner,' and we went out and explored. There was always a park or an undeveloped area or a field where we could just run around and play. Our kids don't have this—they have all these 'arrangements' and we know where they are every minute of every day." Concerns about safety and considerably more developed land contribute.

That's her personal opinion, Patterson says, but many agree with her, and not just those who work with urban children. "My fifth graders come to me knowing very little about plants," says Ann Powell, a teacher with a varied garden project and wildlife habitat at Tallulah Elementary School, Tallulah, Louisiana. "At the beginning of the year they do not want to get their hands in the dirt, but it doesn't take long for that to pass." And Sandra E. Nemeth, a teacher and school gardener in Mecklenburg County, Virginia, notes that although most of the school's students live in a "totally rural school district that does not contain any towns," their families usually do not farm or garden and they have "very limited life experiences."

Jack Kerrigan, the Ohio State Extension agent who oversees the master gardeners who work with three inner-city public schools in Cleveland, says the youngsters are "so amazed to see a carrot or a radish come out of the ground because they just have no idea that's where these things come from!" A suburban California teacher mentions the manicured lawns, the surprise that vegetables don't really originate in malls, and the fear of punishment for "getting dirty" some children have.

School gardens provide often irreplaceable experiences, academically and culturally, for students. Despite the issues—funding, space, technical help, maintenance, inexperience, vandalism, measurability—school gardeners find imaginative solutions and laud their projects. Says Powell: "I am so proud of my outdoor classroom. It took some doing to get it and the funding and do all the work involved. But I wouldn't trade it for anything."

Reinventing the Past

Cultivating schoolyards is not new. Before most Americans lost touch with their agrarian past, Cleveland Public Schools had a "world-renowned" horticulture program that began in the early twentieth century and lasted through the mid-1970s. In fact, says Dennis Rinehart, Ohio State Extension Agent for Urban Gardening, A.B. Graham, the man who started 4-H, got the idea from the Cleveland schools. "The kids gardened at school or at home, and the teachers went out to check on them," Rinehart explains. "Then a new superintendent came in and decided it didn't belong in the curriculum." Busing "unlinked" schools and neighborhoods, cutting summer ties, and funding became a challenge. Garden facilities fell into disrepair.

As school gardening was waning, community gardening in Cleveland, one of the original 23 cities to get federal money for urban gardening, was taking hold and plots at 10 schools became community gardens. But children are getting involved again—three years ago fourth graders at Benjamin Franklin School began working in a plot near 100 community gardeners. Master gardeners meet one day a week with the Franklin children and with students at two other elementary schools. A community garden was added this year at one of the schools. Kerrigan, the Extension Agent for Horticulture and Natural Resources, worked with the master gardeners to gather curriculum materials and design a year's worth of lesson plans. "We worked closely with the teachers so we'd know what the fourth grade proficiency exam covers, and we focus on those skills the kids need—measuring, making and interpreting graphs, vocabulary, journal writing." At Franklin, the old horticulture building is once again clean and in order, and students do indoor projects with Wisconsin Fast Plants, rapid-cycling brassicas developed by a University of Wisconsin plant pathologist. One is a mustard species that goes from seed to seed in just six weeks.

One outcome has been that fifth graders now teach, with master gardener help, a bread class. Each class picks a grain and shares its history and importance with their younger schoolmates. "One of the things the kids didn't understand," says Kerrigan, "was that bread was made from a plant. And so we grow a small section with some grains, some wheat and oats, and then show them how it's ground into flour. Then the kids make bread at school."

The project, funded by a two-year \$33,000 grant from the Cleveland Foundation, is not high cost, he says. One half-time person works with the two new schools and is organizing the curriculum into a consistent format. Summer Sprout, a city-funded, extension-run program, helps out with supplies and services. Kerrigan would like to involve the community gardeners, mostly retired neighborhood residents, more closely with the children and to expand the program. At Franklin the test scores have gone up on the science section of the fourth grade proficiency exam—five points with the first group and 20 percent with the second. "We can't show that individual kids are improving," he says, "but it's certainly demonstrating that the group involved is getting better scores as we improve our ability to work with them, to learn what works and what doesn't."

So far the program involves only 200 kids, but as Kerrigan notes, "It's a school system in terrible disarray, so to have an impact in just three of the elementary schools is important."

Growing Beans, Attracting Butterflies

The size and style of school gardens that teach-

Across much of the country school gardens of one kind or another are thriving. . . . At Benjamin Franklin School in Cleveland the test scores have gone up on the science section of the fourth grade proficiency exam.

ers, administrators and volunteers are building range from carefully constructed raised beds for vegetables, flowers along a fenced perimeter, and plantings in recycled tires and rooftop containers to butterfly and wildflower plots, native plant tracts, and wildlife habitats. Some combine school and community gardening in one parcel or in adjacent spaces, some have greenhouses and market what they produce, some grow for the school cafeteria, some donate their harvest to food banks. Composting, especially worm composting, is popular—children learn both about the life cycle of worms and about renewing the earth.

In New York City where School Chancellor Rudy Crew, a lifelong gardener, would like every school to have a garden, some gardens are in the earth and others are constructed directly on bricks and concrete using two-by-fours set on newspaper or plastic with space for drainage. “Some are out-of-this-world fabulous,” says Linda Huntington, GreenThumb’s education coordinator. The city’s community gardening arm, GreenThumb provides supplies such as top soil for raised beds, seeds, tools, lumber, bulbs and shrubs; has a full-time garden designer who works on a custom design with teachers who want gardens; and offers workshops on how to use the garden in the curriculum.

After Crew took over the city’s nine worst schools as part of the Chancellor’s District, he found the money to install gardens at them, and he has encouraged district superintendents to do the same. More than 150 schools, double the number in 1995, have gardens. They grow everything, Huntington says. Some have edibles, others don’t. “School gardens are just piling on by the dozens,” she says. “It’s in the air in education. Teachers are aware that it’s a good thing. Most thrilling is that we’re helping these city kids learn where food comes from. They really have no idea.”

Brooklyn GreenBridge’s director, Ellen Kirby,

seconds that. GreenBridge, Brooklyn Botanic Garden’s community outreach program, works regularly with 10 school gardens and has another batch in various stages of implementation. The program, begun in 1993, is under the direction of City Parks Foundation, a private nonprofit that supports special projects. For the three Chancellor’s District schools in Brooklyn, GreenBridge provided two days of intensive training for the teacher teams involved and the foundation hired a contractor to install gardens designed by a professional garden designer.

The botanic garden has always had an educational component, including a well-known children’s garden. That, plus a Sanitation Department grant to teach composting several years ago “got us into schools and community gardens and neighborhoods,” Kirby says. Most recently, in collaboration with a housing development and three other groups, GreenBridge has opened a community garden learning center in Bedford Stuyvesant for regular use by nearby school groups. Through “City Kids Get Green,” GreenBridge offers monthly workshops that “give teachers and parents a chance to see what’s involved in setting up a school garden.” Help with design, curriculum and other aspects is available, but schools are on their own for funding. Says Kirby: “We strongly advise people to use the different resources of all the city’s greening groups.”

In fact, when Trust for Public Land (TPL) began its school garden program in the early ’90s and found teachers interested, it got together with GreenThumb. “They were the main organization supporting school gardens then,” says Paula Hewitt, a former teacher who with Andy Stone and Garrick Beck designed TPL’s children’s program. “But they didn’t have the staff to do what teachers needed, which was be in the garden with them.” Now both groups train teachers to take the lead and help with the physical building of gardens.

GreenThumb’s annual conference for gardeners also offers more for teachers and students and is even attracting some teen-agers. At J.F. Kennedy High School in the Bronx, political know-how and activism by a social studies teacher and his students ultimately won them permission to garden on part of a large vacant lot next door. “The kids cleaned the lot and maintained it for a year—it was a dump, an awful mess—and now it’s one of the best gardens in the city,” says Huntington. A new school slated to be built on the land will incorporate the garden so Kennedy, the city’s largest high school, doesn’t lose it. In the works also is a summer program that pairs teens from the High School for Environmental Studies, who will teach GreenThumb-developed workshops, with younger kids at community gardens.

A number of schools have more than one type of garden for use by different grades and for different



Schoolyard Habitats®, National Wildlife Federation®

Cheryl Wade



Gracie Broadnax, one of Cheryl Wade’s “gardening angels,” repots a fern in her classroom at Mendota Elementary School in Madison, Wisconsin.

curricular purposes. Cheryl Wade, who runs a gardening program at two Madison schools through the Center for Biology Education at the University of Wisconsin, oversees an annuals garden tended by kindergartners, a “secret garden” maintained by two second grade classes, and a vegetable plot used by 10 classes at Mendota Elementary School. “To my knowledge,” she says, “there was no garden on school grounds in Madison before I started.” All the gardens are organic, and the children can and do snack on tomatoes, cucumbers, tomatilloes and other goodies they grow. Wade finds “wild and wacky, different-colored and shaped, ugly, big, fast-growing stuff” to plant. She plants, with the use of row covers, in April; spinach goes in the ground in the fall for spring harvest.

She began her Gardening Angels in 1991 with grants from two companies and 31 participants the first summer; a university grant from the Kellogg Foundation for food security allowed her to join the center. And Madison’s community gardeners have provided support. Originally, Wade started the garden for low-income children of color, but the program is now for anyone, she says, because most children’s “knowledge about the source of their food is just as low.” And some children’s nutrition and diet may be poor. At Mendota, Wade has run the garden year-round; she recruits five to 25 children each summer, teaches the basics, goes on field trips, sells at the farmers’ market, and waters the kids, the garden and herself on “bathing suit” day.

After six years, she is prepared to hand the project over to the teachers. The university has presented one workshop and sent some 20 teachers to summer science courses, and Wade has supported the teachers in their use of the garden to enrich the curriculum. “In the beginning,” says Wade, “I would garden outside and beg—literally beg—teachers to allow me in the classroom to share something about the earth, gardening or food. Slowly the numbers went up.” This past year she worked with all the teachers in some way. Instead of 80 students she reached 300, and the student council now sells plants along with popcorn and pencils. Still, she thinks that without an involved garden manager and teachers, or when the grant runs out, “the garden will fall in.” But, she adds happily, “the kids might riot.”

California: One Perspective

While gardens are sprouting at schools from Florida to Arizona, Delaine Eastin, California’s Superintendent of Public Instruction, has institutionalized the concept in her state with a 1995 initiative that would put a garden in every school by the year 2000. “That’s the vision,” says Deborah Tamannaie, the nutrition education official charged with coordinating the program. But with 8,000 eligible public schools and more difficulty getting federal money, it’s likely



Alan Haskvitz

Teacher Alan Haskvitz’s middle school students made a mural depicting the history of food.

CREATIVE TEACHING

“Many teachers do not know how to teach with those ‘teachable moments’ out in the garden and they don’t want to,” says teacher Libby Helseth, who gardens with her fourth graders at Indialantic Elementary School in coastal Florida.

But for those who take to the land, the rewards, they report, are immense. From hands-on math and plant studies to discovering the role of climate and the impact of weather to figuring out calories, keeping journals, and creating art, students can ask infinite “why” questions and teachers can stoke their interest and stretch their learning.

“The possibilities are endless,” says Joe Gillespie, sixth grade teacher and garden coordinator at Crescent Elk Middle School in Crescent City, California, who uses Life Lab Science Program’s The Growing Classroom and other materials. His students do controlled experiments growing plants with or without mulch, organic fertilizers or a row cover of some kind. Students test soil samples or grow seedlings in soils from different sources to compare the effect of soil type and compaction. They check the viability of seeds of different ages—“since we seem to accumulate seed packages”—and the effect of seed depth on germination and growth. Students keep notes and observations in a garden journal, turned in regularly for credit.

“We also have a long-term experiment going,” reports Gillespie, “in which each group has a miniature worm bin in a plastic storage box.” Fifty worms go in the bins in the fall; then students predict, based on what they know about worm reproduction, the number they will find in June. “Students have to feed and care for them all year,” he says. “We might place a couple of bins in the greenhouse to see if there’s a difference in population if they are kept warmer.”

Gillespie’s students learn about marketing, nutrition and leadership by planting and selling produce throughout the school year to support the garden. They plant a variety of lettuces, cabbage family crops, peas and some root crops that they then harvest, wash and bag in one-pound increments and sell to parents, teachers and the general public. “In this way,” Gillespie says, “we have been able to support the entire project for the past few years. We also plan and prepare for a fall Harvest Festival and a spring Mother’s Day plant sale, both good fund-raisers that provide a multitude of learning opportunities. Much of our garden curriculum centers around these three things.”

Georgia landscape architect Ann English, who has designed and been involved in a number of garden-curriculum projects, says that “unless the teachers adopt the project as their own, a garden cannot sustain itself with only volunteer labor.” Gardens can be designed, though, to meet curricular needs. At one high school she developed a theme garden with plants mentioned in Shakespeare’s works that the English department uses and an ecology club maintains; third graders use a native flora garden, installed by parents, to reinforce community concepts; and garden between the sixth and seventh grade wings of a middle school incorporates Greek elements to match the social studies curriculum and plants that attract butterflies.

to take longer. "If we get enough funding," Tamannaie says, "it's reasonable to have a garden in every school in three to five years."

California's project is run by the nutrition education and training program within the education department. As such, it benefits from U.S. Department of Agriculture grants for nutrition education as well as from state funds. A state survey found in early 1996

California, Davis, researchers had been evaluating the impact of the school garden at St. Helena. Do student gardeners eat more vegetables than their nongardening peers? they wondered. "They did see some positive results," Tamannaie reports. She is hoping that, as the support centers develop, help will be forthcoming from them for more assessments.

The St. Helena K-5 model program uses hands-on, garden-based nutrition education, integrated into classroom studies, and pulled together from a variety of available materials; it is expected to produce sample curriculum this year. Individual teachers decide how much and how often to use the garden, and a part-time project coordinator provides training, resources and assistance. The kids grow, in school-wide raised beds, a wide variety of foods that they use in classroom lessons and that they help prepare in the cafeteria for special celebrations.

Named Peter Pepper's Pyramid Power Project by the students, the model involves everyone: teachers, administrators, food service personnel, parents, business people, community members. All help with construction, maintenance, nutrition education activities and funding. Napa County's master gardeners offer technical assistance, the Culinary Institute of America hosts hands-on cooking adventures, and a local nursery, grocery and wineries donate seeds, labor and money. Other businesses regularly support the project with products and services.

Overall, Tamannaie reports, A Garden in Every School is working out well. Most schools, even the most urban, can find some space. Some, when it is structurally safe, are successfully gardening on their rooftops. "If a school isn't interested," she says, "maybe it will be down the road. We have plenty of interested schools now."

ACGA, the National Gardening Association (NGA) and the American Horticultural Society (AHS) intend to build on A Garden in Every School momentum. "The California campaign has created an opportunity for interest and excitement," says David Els, NGA's representative. "The idea is so large that it's difficult for any one organization to get its arms around it, so we're asking now what we can do and what form it can take." Funding is an issue, he says, and a significant grant will perhaps be the impetus for solidifying the project. Says Els: "A campaign gives us the opportunity to raise public visibility or affect public policy. We will have made a very definitive statement about the importance of using plants as an effective teaching tool, not just an alternative. The best way to do this, of course, is to have an objective. Maybe it's not a garden in every school, but it encourages the incorporation of plant science into the curriculum."

One of California's best-known school gardens, the Edible Schoolyard at Martin Luther King Middle School in Berkeley, has already garnered publicity and

Joe Gillespie



California students lunch on fresh-picked vegetables from their large and varied school garden.

that at least 1,000 schools have gardens they use for instruction. To begin a garden, schools can apply for grants through a process that's competitive, "partly," Tamannaie notes, "to assure that nutrition education will take place." They also need to have support from teachers, parents and community members. By August 1998 start-up grants from the state had gone to approximately 100 school districts and child-care agencies, representing 450 garden sites.

The thrust behind the project is to encourage children to make healthier food choices, participate more fully in school, and develop more appreciation for the environment. Project supporters cite research that kids do better in school when they are well-nourished. The intent of A Garden in Every School is to cultivate a taste for fresh vegetables and fruits early on and to help kids make the connection with the source of food in this highly agricultural state. Advisers from groups that support school gardens offer direction. Tamannaie's office provides a packet of garden information to schools that request it, oversees the grants, keeps a list of curricular resources, and supports a model program for the Garden in Every School project at St. Helena Elementary School in the Napa Valley. In the planning stages, Tamannaie says, are support centers around the state where schools can get more technical assistance and possibly call on an experienced gardener to come on site and demonstrate.

Until funding was cut for the study, University of

awards. Its founder, noted restaurateur Alice Waters, was honored last December by the U.S. Secretary of Education for her contributions. Students, with support from a garden coordinator, grow a host of common and uncommon vegetables that end up in the school's newly outfitted kitchen and on the cafeteria table. They are, by all accounts, learning about plants and nutrition, and having fun.

The only other state, known to date, with a formalized school garden plan is Utah, which signed an agreement in June 1998 with Mel Bartholomew's Square Foot Gardening Foundation. Through the collaboration each fourth grade class is incorporating the square foot gardening method and a 10-lesson gardening course specially designed by Bartholomew into its science curriculum. The foundation is donating a three-foot-square tabletop garden with a soil mix and a top square-foot grid to every elementary school in the state, while the state office of education is providing a "prominent and receptive environment" and continuous follow-up for the pilot project, the agreement notes.

Getting Started

How do you begin? What about money, supplies, curriculum and help? California teacher Alan Haskvitz, for example, writes grants—like Powell in Louisiana and Nemeth in Virginia, he benefitted from an NGA stipend. He has the kids bring a penny a day to buy plants, keeps a wish-list for parents, gets help from the water district, and calls on nearby businesses. "The community, that's the key thing," he says. "You just can't believe how valuable the community is to you if you ask and if you use their expertise. I just call people who know."

Kathy Bosin, program director of Gateway Greening in St. Louis, notes that in their experience school gardens have been "the most difficult part of the [community development] puzzle." In a city with 13,000 vacant lots in 1998, Gateway uses gardens as a vehicle for community development and has building community sites down pat. "But in thinking about schools for the past two years, we find it has to involve the neighborhood," Bosin says. "Community is key. We want groups that can design, build and maintain the garden." Her process is the same for community and school gardens, and at least 10 people have to sign on to each project. "A group has to do all it can—clearing the land, bringing in soil—before we'll step in and help. Struggling with development leads to ownership," she says, and increases sustainability over time.

Of 41 outdoor school gardens in fall of 1998, Gateway has been in on the start of 24 and is affiliated with the others. Impetus has come from teachers, active and retired, and neighbors, who often help maintain the garden in summer. Master gardeners and

other volunteers are vital. The organization has an arrangement with North County Technical High School, which has a horticulture program and eight greenhouses, to grow all its vegetable starts. Gateway provides the seeds, flats and soil mix, and the kids count it as their community service. The relationship began when Gateway needed help figuring out how to use PVC pipe to build indoor grow labs; now volunteers build 25 or 30 a year on an "assembly morning," and teachers who apply and attend a workshop can pick one up along with the NGA's Grow Lab curriculum guide. More than 120 classrooms now have labs.

Gateway offers workshops at its demonstration garden on Saturday mornings, and lots of teachers come to learn gardening techniques, such as how to set up a bed. The organization also promotes vermicomposting with classroom teachers "because it's a natural fit and another way to get into school gardening," Bosin notes. "The idea is to provide teachers with an activity that they can do all year. Providing all the material is important. They can pick up the phone, call us and we give them everything. The only way they won't succeed is if they're totally disinterested. And if you do the worm composting project, you cover all the third-grade state science standards." The St. Louis-Jefferson Solid Waste Management District has provided two successive grants for the program.

Working with master gardeners and gardening volunteers; drumming up matching funds and supplies from city departments, waste authorities and neighborhood businesses; attending local, regional or national greening groups' workshops geared to school gardening; involving older students, seniors, the parents association, and neighbors; and using AmeriCorps



Gateway Greening

St. Louis area teachers get some planting tips during a demonstration at Gateway Greening's Bell Community and Demonstration Garden.

and similar service groups are ways that many school garden enthusiasts use to begin or expand their programs. Sixth grade teacher Joe Gillespie expanded a small garden, begun in 1994, at Crescent Elk Middle School in Crescent City, California, to an entire 170 by 100 foot lot with 50 raised beds, a toolshed and a large composting area with community help. The local Solid Waste Management Authority, the Rotary

Club, a small private foundation, nearby Redwood National Park, the state 4H recycling/reuse project, and local businesses helped. The school district provided fencing, and Gillespie won an NGA grant in 1996. He bought a Turner greenhouse at cost, thanks to the company, with \$1,500 raised from Earth Day beach-cleanup pledges.

The solid waste authority uses the composting area for monthly workshops and to sell compost bins each year. "The authority has been an excellent partner," Gillespie says. "They have helped us get AmeriCorps members to assist our composting efforts and to take care of the garden during the summer." Gillespie, who is helping other schools in the district set up gardens, has found volunteer help an on-again, off-again affair. The school requires fingerprinting of outsiders for the children's safety, which has discouraged volunteers. Parents, who don't need fingerprinting, and AmeriCorps members have been the best. The children's energy, he says, discourages older people and others. To minimize the summer dilemma, he plans to plant the entire tract with pumpkins and squash this year to hold down weeds and to harvest for a fall festival.

Ann Powell, who in three years has incorporated vegetable beds, agricultural crops representative of the area, composting, wildflowers, tulips, butterfly and hummingbird plots, and a wildlife habitat into the school garden, has had considerable help from the soil conservation and extension offices and Tallulah community members in general. Sandra Nemeth, Buckhorn Elementary School in South Hill, Virginia, has partnered with the local power company, parent volunteers, and Future Farmers of America members at the nearby high school, which has a greenhouse, who help her fifth graders start their seeds. In Indialantic, Florida, fourth grade teacher Libby Helseth found summer help through her agriculture agent from people who had court-ordered community service obligations. She began the organic garden at Indialantic Elementary School, on a barrier island between the Indian River Lagoon Estuary and the Atlantic Ocean, several years ago with help from another teacher, a master-gardener parent, and grant and PTO money. Helseth later won a grant to establish a native plant garden.

The Square Foot Nutrition Project in Tacoma, Washington, has a USDA grant and partners with the local parks district and the nonprofit Tahoma Food System. Its coordinator, David J. Eson of Pierce County Cooperative Extension, works with four elementary schools with on-site gardens. The project, to teach nutrition to residents eligible for food stamps, is "most likely one of the first few to use Food Stamp Nutrition Education Project money for gardening," Eson says. Workshops for all Tacoma Public School elementary teachers this spring offered local and

TRANSFORMING BOSTON'S SCHOOLYARDS

Turning "wastelands of old and cracked asphalt" in one of the nation's oldest cities into active centers of learning and community use may seem like a pipe dream, but that's just what's happening in Boston. When some schools began to clean up their land, they didn't have enough money and the process took a long time. So in 1995 a partnership between the Boston Foundation and the City of Boston—the Boston Schoolyard Initiative—was born. Other private foundations also work with the Boston Foundation.

"We have a very holistic approach," explains Kirk Meyer, the initiative's director. "We want sustainable schoolyards not only with green spaces, but also with outdoor classrooms and play structures, places that youth groups and summer camps and before- and after-school programs can use, and also that are open spaces for the neighborhood." The city is spending \$2 million a year from its capital budget, and the foundations are putting up money, with Meyer making sure the contributions are within their guidelines. About a third of the city's 120 public schools are now funded; 16 projects are finished, 24 are in the works, and another 10 will receive funding shortly.

"We have a whole process, basically a community design and development process, and we award grants to organize and get everyone in the neighborhood and school around the table," he says. Once concerns such as safety, parking, and educational uses are ironed out, a consensus of needs and desires emerges. "You can put in capital improvements in an urban environment and in a few years they look awful," he says. "We are building a constituency that has a stake in keeping the space protected and in good shape—so teachers will consider it an integral part of the school, not just a recreation area."

As gardens have gone in at some schools, more schools now want them. The latest proposals have mentioned greenhouses, a request that makes the school department nervous about safety. Gardens at schools are a challenge, Meyer says, because of the summer season. Busing rules out neighborhood schools, which means for a successful vegetable garden, a school and its neighbors must work together to maintain the garden throughout the year. Dorchester High School, with a "mini-farm" of almost an acre, "had to work to get stipends for summer youth workers." Permanent garden sites at two elementary schools have water hookups that the school department arranged, but Meyer says they try to locate gardens close enough to run a hose from the building. At one site parents have hired Boston Urban Gardeners to work with the summer youth program. "The community greening groups play an incredible role," he notes, "but they can't do it for nothing."

From organizing to construction takes close to two years, a slow and deliberate process that helps build ownership. The initiative is meant to be a five-year project, but that will leave almost half the schools untouched. Still, the city is getting a great deal for the money, Meyer says, in terms of visibility and "immense good will." In one residential community with a huge high school in its midst, the animosity was palpable until the plants went in. Then neighbors stopped to chat with the principal about the project and ties are being reestablished.

Boston hopes to provide a model for other cities with its public-private partnership for schoolyard development.

national examples of garden-based learning, demonstrations of learning activities, and details on getting started and local resources.

In Los Angeles County the Gardening Angels, volunteers with horticulture training, help schools start a garden and assist teachers weekly on campus with lessons, plant advice, and fund raising. Sponsored by a parent organization through L.A. County Cooperative Extension, the group gets upwards of 75 requests a year. “We have more than 80 schools on the waiting list,” says outreach coordinator Bonnie Freeman, “so now we ask schools to send someone, a parent or community member, and we’ll train them.” Teachers can’t volunteer at their own school.

Freeman says the cost to start a garden is under \$100, and the great majority are raised beds built on asphalt over a layer of gravel using 4 by 8 foot recycled plastic, redwood or fir “logs.” “We try to find a spot near water and the classroom with six hours of sunlight.” The award-winning program, begun by Rachel Mabie, director of Los Angeles County Extension Service, reaches more than 33,000 children, 70 percent from minority populations, and was asked by the City of Santa Monica to put gardens on its 10 campuses.

Our survey of school garden programs shows there is no single formula for success. Common themes emerged, however, from interviews. A school garden requires an articulation of the program’s goals and the wholehearted support of the school principal. Money and supplies acquired through the school budget, grants, donations, community partnerships and/or fund raising are necessary. Training for participating teachers, both gardeners and nongardeners, on how to use the garden to support the curriculum and to encompass standards of learning is important. Other considerations include whether the garden program will need volunteers, if volunteers will be available, and how to maintain the garden during the summer months.

Integrating a Garden into the Curriculum

California’s initiative has some irony for Alan Haskvitz, an award-winning teacher—one of only three dozen elected to the National Teachers Hall of Fame—who had to “battle” to start a garden in Walnut, California, some 15 years ago. Then his garden was ripped out after his classroom was moved five years ago. But after starting over with a small site, “a hole in the concrete really,” Haskvitz now has a 20 by 40 foot garden, constructed entirely of recycled materials, that “belongs” to the 35 eighth graders in his homeroom at Suzanne Middle School and is used by his social studies classes. “We have grapes going up the wall, cotton plants—because the kids have to know why the Civil War started, a pumpkin that won’t die, roses, tomatoes, peppers, beans,” he reports. Though

it uses land less efficiently, students plant what they choose, based on their studies, in recycled bus tires, so they know their own project and become protective. Much of the harvest goes to the homeless. In the summer, the custodial staff looks after the garden.

Integrating the garden into the curriculum has produced interesting projects: testing soil, identifying plant parts and raising worms in science; writing computer programs to track calories, rain fall and plant growth; considering the effect of plants on civilizations and the impact of climate zones in social studies. In English class students read *What’s in a Hamburger?* and *Plants That Changed the World*. For a “run off the carrot” exercise, students had to grow an item, measure the amount of calories it takes to run it off in P.E. class, then literally run it off. “They got to see what a calorie really means,” Haskvitz says.

His students also have learned firsthand how to get legislation passed. After planting and maintaining a drought-tolerant garden, they were dismayed that others didn’t care about xeriscaping. So they wrote a bill, persuaded a local legislator to carry it, sought help from a political action committee, had lobbying lessons from a pro, saved their money, and flew to Sacramento for a state senate session. “They gave the senators a quiz on plants,” Haskvitz says proudly, and the legislation—requiring state-funded buildings to use xeriscape landscaping or have a good reason why not—passed.

Says Haskvitz: “The garden is a tool for learning, a means to an end. It’s not really costly. It ties in with the curriculum. You can satisfy community service requirements. And it teaches patience—that’s the best thing about gardening.”

In University City, a close-in suburb of St. Louis, a parent-initiated and parent-run program at Flynn Park Elementary School has garnered kudos nationally and is being duplicated, at least in part, at the district’s five other K-5 schools. During a planting week in the spring, each child in the 400-student school plants a square foot in Flynn Park’s organic vegetable garden. Before school is out in June the harvest becomes a huge fresh salad shared by all. Since a class has about 20 children, Linda Wiggen Kraft, the parent-volunteer who organizes the project, devised a layout with 3 by 8 foot plots for each class, and then she designed square-foot Mylar® templates with just the right size and number of holes for each of 10 cool-weather crops that work in the Zone 6 climate and mature before summer vacation. Each child chooses what to plant in his or her space.

“A lot of teachers have a model of how to teach indoors,” says Kraft, a landscape designer, “but to take the kids outdoors, that’s often scary. We had to show them how to do it. And because it’s not required by the curriculum, we made it as easy as possible.” Teachers can individually tailor classroom activities to what

“The garden is a tool for learning, a means to an end. It’s not really costly. It ties in with the curriculum. You can satisfy community service requirements. And it teaches patience—that’s the best thing about gardening.”

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their students are seeing in the garden at a given time. The first spring, 1996, four parents helped each class during its turn to plant. “We needed lots of volunteers, which was hard to coordinate,” she says. The following year an enthusiastic teacher had her fourth and fifth graders “apply” and train as helpers.

“The kids are very creative,” says Kraft. “We divide a class into small groups outdoors and a helper is assigned to each. They read stories, learn about vegetables, look at various seeds, and the helpers came up with garden-related games.” And the seeds get planted without trampling.

Kraft and her parent volunteers are sold on the experience, which, she says, “can’t be duplicated inside.” Nor does she think environmental education—learning about the rain forest, for instance—is usually relevant. “Here the kids are in their own environment. They see a cycle from seed to harvest. They come out and weed and water and see the growth. It’s relevant to them.”

In summer, community gardeners rent the plots in Flynn Park’s garden for a nominal fee, thereby solving a thorny problem for many schools. One bonus: When the children return, there’s almost always something left for them to glean.

At Orca at Columbia School, a K-6, ethnically mixed Seattle public school, the garden also began, in 1991, with parent initiative through a matching grant from the Department of Neighborhoods, funds from

other city departments and a neighborhood development group, and community efforts. To create the garden entailed removing 4,000 square feet of asphalt. A greenhouse, supported by the parents’ association, “with our mild climate really expands the growing season to year round,” says Anza Muenchow, the former coordinator. Muenchow, now head of King County’s Master Gardener Program, began as a parent volunteer, then came on board as part-time garden overseer. She spent a lot of time readying the physical space and then fleshing out the program and organizing volunteers. She also spent time raising money. The school now sells, on the Saturday before Mother’s Day, vegetable, flower and herb plants that students start from seed.

Most of the 300 children work in the garden weekly, often with a parent volunteer, in groups of six to 10. Two coordinators, reports Alan Moores, “help the teachers develop ongoing garden curriculum, guide the volunteers who work with the students, and work directly with certain classes in the garden ourselves every week.” Each class has a parent-garden liaison. Some teachers integrate the garden into their classroom studies; others use it as enrichment. Muenchow notes, “We shied away from using the garden as a reward or a punishment or a place for a substitute to send kids. Every kid gets a chance to be in the garden.” The master gardener program supports Orca with volunteers, training for parents, and materials.

CONNECTING ART AND ENVIRONMENT

Gardens, says artist-community organizer Julie Stone, can encompass more than growing food and flowers. They can express a community’s values or history or feelings, and through art in varied forms, she finds many ways to do just that in school and community gardens. “When I work with a group doing a schoolyard, I listen for clues to build a cultural component into the space,” says Stone, a photographer and ceramicist.

Art in the garden can be a one-day, hands-on informal community activity; permanent public art, such as a piece commissioned from a professional artist; or participatory art that is transformed into a permanent installation. “Art can be a translator or facilitator for integral aspects of the curriculum,” she suggests, “whether it’s science or social studies or English. You can start with a theme, for example recycling, and do a one-day expression that’s not permanent. Or you can do a series of performances or have educational or cultural events that happen in the schoolyard or are tied to it.”

At one Boston school, Stone’s task was to bring together the school population—teachers, students and administrators—and community representatives to design a new schoolyard with a landscape architect. Foundation money was available to do and to maintain some public art. The school wanted to include each child directly and also wanted the community involved, so she devised a scheme to do a simple project that could involve different age groups and be transformed into permanent art. With a theme of “Earth, Air, Fire, Water”

children drew “wonderful dinosaurs and birds and fish” in art class. The drawings were traced onto cardboard, fabricated in metal by a professional, and welded to a new fence around the space. “It’s children’s art,” says Stone, “but made permanent by a professional, so it has a level of integrity for the community.”

In a one-day event, community members made press molds of shells, leaves and other items that were later used to make fired and glazed tiles for the pathways and benches. Pressing vegetables, fruits, leaves and flowers into freshly poured cement to leave an impression on pathways, patios and walls is another great way, she notes, to add “a subtle and gorgeous” touch to school and community gardens and also can be educational.

With a sixth grade social studies class Stone made a tile mural. The class learned about vegetables from Extension Service agents, learned to do ceramics, and watched the garden being constructed. “We did a grid to scale and laid it out on the classroom floor, and they had to figure out how many tiles would fit.” Stone fired the tiles herself. “It’s right on the outside of a community garden and is a link between the school and its young people and the garden.” After six years, not a hint of graffiti has appeared.

Says Stone: “All of it really is a catalyst to build community and bridge cultural differences that can be sustained—because there’s a sense of self-expression.”

For more on art in the garden, read about Philadelphia artist Lily Yeh, page 24.

One innovation Orca offers is a six-week garden elective for fourth, fifth and sixth graders that combines plant propagation, use of tools and business-related skills and supports the annual plant sale. Students have grown a “tostado” garden replete with dried corn, dried beans, tomatoes and onions, in which “not much is ready to harvest until fall,” Muenchow says. Last summer, Moores’ colleague, Amanda Leisle, swapped maintenance duties for growing space and two local youth groups also used the garden. Volunteers watered weekly. Says Moores: “We were able to make a fairly seamless transition from summer to fall, even harvesting enough produce from Amanda’s garden, and other class gardens, to make lots of great food for our annual Harvest Day.”

Finding More Resources

For school garden pioneers, a host of books and curriculum materials are available to help guide their program development. *Digging Deeper*, produced in partnership with ACGA (see review page 18), and *Success in the Garden* by former ACGA Board member Lucy Bradley (see review page 17) are two of the newer resources. Life Lab Science Program, a popular, 20-year-old group that specializes in outdoor school gardens, offers award-winning curriculum: *Life Lab Science for K-5* and *The Growing Classroom*, a supplemental guide with activities. Based in California, Life Lab works with more than 1,000 schools across the country, offers workshops and individualized program design, and has published a thorough guide to creating an outdoor classroom.

The National Gardening Association, in addition to its coveted youth grants, sells GrowLabs in several sizes with a guide to indoor gardening. Multi-disciplinary, inquiry-based curriculum and activities for K-8 and a teacher’s guide with plans to build your own grow lab can be ordered separately. *Growing Ideas*, a three-times a year newsletter, features theme-based activities, resources and teaching strategies, and an e-mail network connects kids and classrooms.

With the help of a large advisory panel of specialists in various fields, the American Horticultural Society plans an annual symposium covering numerous aspects of gardening with children and youth that is held in different regions each year. Coming up July 22-24 at Denver Botanic Garden is the seventh such educational event that offers information about design, curriculum, resources, new ideas and contacts.

Growing Power, a Madison-based nonprofit community garden land trust organization with a variety of projects, has formed the Children’s Garden Network to share support and resources, develop grant opportunities, and work collaboratively. “We’ve found we share many of the same goals and challenges,” says founder Hope Finkelstein, “but when you’re involved in your own project, it’s very hard to reach out—

especially working with kids in an outdoor setting, which is a challenge.” Growing Power was able to get a grant to pay university interns last summer. “Offering pay was really good,” Finkelstein says. “We had lots of application and it solved one of the biggest challenges, labor over the summer.”

The Southwest Region Community and School/Youth Gardening Conference in Phoenix, Arizona, is fast becoming a must-attend February event for those involved in school gardening. Sponsored by the University of Arizona Maricopa County Cooperative Extension, the conference features a number of seminars and site visits, and honors school and community gardeners in the region.

A network of school garden enthusiasts exchanges information and ideas through the Internet. To subscribe to the list, send e-mail to school_garden-request@mallorn.com with “help” as the subject or go to <https://secure.mallorn.com/mailman/listinfo>.

Assessing the Impact

A critical element in developing and sustaining a school garden program is its ability to educate students. “In this era of accountability we have to be able to show that a school garden is making a difference for students in the classroom,” says Tom Tyler, president of ACGA and Extension Agent for Environmental Horticulture in Arlington, Virginia. Once a garden is in the ground, does it matter? “In my opinion, moving a teacher or volunteer beyond growing a cute marigold for mom is one of the biggest challenges. Documenting the value of this activity, and others, will lead to greater buy-in from everyone associated with the educational community,” says Tyler.

School administrators, teachers and funders want tangible results, not just anecdotal information anymore. Solid research that shows benefits—better test scores or enhanced skills—can justify funding and inclusion as an integral part of curriculum.

Research is difficult to design to achieve good



Gateway Greening

Students at Stevens Elementary School in St. Louis are happily planting in the Marcus Garvey Community Garden across the road.



A student and community gardener harvest together. For many children, experiences in a school garden are fascinating: They learn that carrots don't grow at the supermarket!

results and is time-consuming to carry out. Some studies assessing environmental education overlap with horticulture, but understanding the existing environment is not the same as actively “nurturing the planet,” notes Virginia Polytechnic Institute and State University Associate Professor of Horticulture Diane Relf, also chair of the People-Plant Council. “When students are put in the position of taking care of life, their personal commitment and involvement is at a different level. There’s a need to expand the research.”

Laurie DeMarco, Relf’s former graduate student, found in a search of the literature only one study that used pre- and post-testing to measure the effects of gardening at a school. University of South Carolina researcher Barbara Sheffield compared two classes, one that used a garden, the other that covered the same material in the classroom. On two tests, one academic and the other on self-esteem, the garden-users had higher scores. The study offers a model for research, DeMarco said. Her own work asked what makes a school garden work. From a national survey of NGA grant winners, DeMarco found three factors necessary for success: personal investment by the teachers and others involved; the availability of resources including funding and equipment; and teachers’ knowledge. Less clear was whether availability of volunteers was critical.

Personal investment, DeMarco noted, needs to include the support of the principal and administrators who can facilitate resources such as hooking up to water and paying for books. It also means the garden should be integral to the curriculum and involve student-led inquiry. “Teachers taking a chance to use a garden are exactly those who like to explore, to deal with questions the kids ask and that they may not be able to answer,” she says. And students should have a sense of ownership.

Teachers indicated that they rely more on their gardening rather than science knowledge, which “leaves out a lot of teachers who are not gardeners.” Outdoor labs, demonstration gardens, and workshops

are important. “Even when plants fail,” DeMarco says, “it’s still a learning experience. It’s problem solving. Teachers need to see what they can do.”

Virginia Tech graduate student Catherine P. McGuinn has reported great success with six low-income, at-risk boys she worked with in 1998 at Blacksburg Independence School, an alternative school for behaviorally disordered youths in two county districts. McGuinn’s students, ages 14 to 16, were on probation from the juvenile courts, at least two years behind in school, and had been expelled or suspended. After a semester of vocational horticulture, with talk about careers, all six had summer horticultural jobs, two in internships that McGuinn had arranged with the town grounds crew and for which they had to apply.

McGuinn arranged for volunteers so the boys had one-on-one help in class and made sure they practiced interviewing and wrote résumés. “One boy came to me privately,” she relates, “and asked me to help him get a job with the university grounds maintenance crew. I helped him fill out an application and schedule an interview.” He got the job, and the other three were hired by local landscapers. McGuinn, who monitored the boys’ behavior and attendance, says the initial analysis indicates improvement. She is doing a six-month follow-up. Says Relf: “The turn-around in these boys is a major, major accomplishment.”

Researchers in San Antonio recently reported on a three-year study of Bexar County’s Master Gardener Classroom Garden Project that considered whether participation would increase a student’s self-esteem scores and improve classroom behavior, attendance and grades. Professor Jacquelyn Alexander of Our Lady of the Lake University and Debbie Hendren of Southwest Texas State University, with support from the Bexar County Extension Service, found overall that “the students demonstrated improved relationships with peers, parents, and themselves.” Although the evidence was not conclusive, it did indicate that self-esteem was enhanced, and that, in turn, may be related to better classroom behavior, better attendance and better grades. Other researchers at Texas A&M are currently comparing the effects of gardens at different schools.

A State Education and Environmental Roundtable Study, “Closing the Achievement Gap: Using the Environment as a Context for Learning,” looked at 40 schools incorporating some form of environmental education, including some schools involved in gardening or habitats. Evidence “indicates that students learn more effectively within an environment-based context than within a traditional educational framework,” the study notes, and cited “visits, interviews, survey results, and gains on both standardized test scores and GPAs.” Copies are available through the group’s Web site at www.seer.org.

Our research shows that school gardens are once again a feature of the American educational landscape. Imaginative teachers are using vegetable, flower, butterfly, wildlife and native-plant gardens in a variety of ways to teach science, math and nutrition concepts. Others use gardens for literature and social studies, journal writing, art projects, economics, biology and ecology. Most of the gardens are at, or used by, elementary schools, where gardening fits most easily into the curriculum and mandated standards of learning and where the largest assortment of teaching materials is available. Those at high schools are usually part of a vocational horticulture program.

A formula for success with a school garden is not handy. Principals who support gardening and teachers who use gardens are reassigned to other schools or retire. Many teachers are neither interested nor knowledgeable about gardening, and others are uncomfortable teaching “off the cuff” outside. Teacher training is not widespread. Some cities, Los Angeles, for example, have a highly developed and trained network of volunteers who help with all the aspects of starting and maintaining a garden. Other areas offer limited formal technical support and resources. Funding for gardens is very uneven: an Edible Schoolyard is possible thanks to a major benefactor, while other teachers scabble for plant money and just want to keep the principal from declaring their gardens an eyesore. What works at one school for one teacher may not be replicable.

On the plus side, more and more excellent garden-based materials and conferences are available, and networks such as Hope Finkelstein’s Growing Power, Martin Kemple’s and Joseph Kiefer’s Food Works, and Lucy Bradley’s Internet list offer ways for school gardeners to connect and share experiences.

Gardens have often been started by one interested teacher or parent. These efforts sometimes take off and expand; others continue to be individual, albeit school-sanctioned, enterprises. Teachers are frequently obliged to find money to support a garden through grants and fund raising. Sources include the National Gardening Association, the school district, local and national foundations, government agencies, parent-teacher groups, and the sale of produce and plants. Teachers have forged successful partnerships with parent and community organizations, government divisions (parks and solid waste units), and businesses. Some superintendents, seeing the success of a garden at one school, are writing gardening into their district budgets and implementing programs at more schools.

A dearth of good research on school gardens makes it difficult for advocates to demonstrate the advantages of programs and to readily justify funding. As researchers begin to devise more projects to assess the burgeoning number of school gardens in California and elsewhere, evidence will reveal the

exact nature of the benefits to students that observation and anecdotal reports by teachers who garden currently project. Until then, individual comments and research indicate these keys to success for school gardens.

- **School administrators—principals and boards of education—must support the garden.**
- **Teachers and garden volunteers must be trained in gardening and project management and must be personally invested.**
- **Resources must be forthcoming.**
- **The garden should be integrated into the curriculum and provide student-led inquiry.**
- **Community members should be involved in all phases of the project.**
- **Begin small and keep gardening fun.**

Clearly, gardens are making their mark in the school world. Stories abound of the richness they bring to children and the adults who help them on the path of discovery. Those who are tilling in the schoolyard are open, generous and delighted to share. School gardening currently enjoys wide support and has been included in the national science standards.

More work, of course, remains. Gardening has yet to be integrated into the curriculum in many schools. Educators need appropriate training. The impact and outcomes of school gardens need effective documentation through well-designed research strategies. Networking, advocacy and collaboration by those committed to school gardens must be better developed and orchestrated to lead the way. Still, the possibility of “a garden in every school” is on the horizon.

Dig in. It’s hard work.

SCHOOL GARDENING RESOURCES

American Horticultural Society
7931 E. Boulevard Drive
Alexandria, VA 22308
Phone: 703/768-8700
Web: www.ahs.org (home page); ahs.org/nonmembers/symposium.htm
(information about the Youth Gardening Symposium)

Boston Schoolyard Funders Collaborative
Kirk Meyer, Director
c/o Boston Foundation
One Boston Place, 24th floor
Boston, MA 02108
Phone: 617/723-7415
E-Mail: kdm@tbf.org

Brooklyn GreenBridge, Brooklyn Botanic Garden
Ellen Kirby, Director
1000 Washington Ave.
Brooklyn, NY 11225
Phone: 718-622-4433
E-Mail: ellenkirby@bbg.org

California “Garden in Every School”
Deborah Tamannaie, Nutrition Education Consultant and Coordinator of GIES
California Department of Education
Nutrition Education and Training Program
721 Capitol Mall, P.O. Box 944272
Sacramento, CA 94244
Phone: 916/323-2473
E-Mail: dtamanna@cde.ca.gov
(very useful information packet)

Many useful resources are available to help teachers and administrators begin and support a school garden, including an Internet discussion list and helpful World Wide Web sites.

Food Works
Joseph Kiefer, Executive Director
64 Main St., Montpelier, VT 05602
Phone: 802/223-1515
E-Mail: RootsNet@Plainfield.Bypass.com

Gateway Greening
Kathy Bosin, Program Director
P.O. Box 299, St. Louis, MO 63166
Phone: 314/577-9484
E-Mail: kbosin@ridgway.mobot.org; gateway@ridgway.mobot.org

GreenThumb
Linda Huntington, Education Coordinator
Department of Parks and Recreation
The Arsenal, Central Park, New York, NY 10021
Phone: 212/788-8073

Growing Power, Inc.
Hope Finkelstein, Executive Director
229 Merry St., Madison, WI 53704
Phone: 608/242-7196
E-Mail: gropower@danenet.wicp.org

Linda Wiggan Kraft
Organizer, Flynn Park School Program
7275 Creveling, St. Louis, MO 63130
Phone: 314/863-1136

Life Lab Science Program
1156 High St., Santa Cruz, CA 95064
Phone: 408/459-2001
E-Mail: lifelab@zzyx.ucsc.edu
Web: lifelab.ucsc.edu

Los Angeles Gardening Angels
University of California Division of Agricultural Sciences
L.A. County Cooperative Extension
2 Coral Circle, Monterey Park, CA 91755
Phone: 213/838-8330

National Gardening Association
180 Flynn Ave.
Burlington, VT 05401
Phone: 800/538-7476
Web: www.garden.org
(The National Gardening Association Guide to Kids' Gardening: A Complete Guide for Teachers, Parents and Youth Leaders, GrowLab materials and curriculum, subscriptions to Growing Ideas: A Journal of Garden-Based Learning, and other gardening supplies)

National Wildlife Federation
Stephanie Stowell, Schoolyard Habitats Coordinator
8925 Leesburg Pike, Vienna, VA 22184
Phone: 703/790-4582
E-Mail: stowell@nwf.org
Web: www.nwf.org/habitats

Trust for Public Land
Paula Hewitt, Children's Programs Director
666 Broadway, New York, NY 10012
Phone: 212/677-7171
E-Mail: tpl@pipeline.com
Web: www.tpr.org

To order garden/environment teaching materials or research studies, check these resources:

Bexar County Master Gardeners
Springview Building
700 Garcia, San Antonio, TX 78203
(\$12 for copy of full study)

Green Brick Road
(nonprofit, resources for teachers/students)
c/o 8 Dumas Court, Don Mills, Ontario, Canada M3A 2N2
Phone: 800/473-3638
Web: gbr.org/school/resource.htm

Let's Get Growing
(Life Lab materials/others)
1900 Commercial Way, Santa Cruz, CA 95065
Phone: 800/408-1868
E-Mail: letsgetgro@aol.com
Web: www.letsgetgrowing.com

Useful Web Sites:

Classroom activities: www2.garden.org/nga/EDU/Home.html

Environmental Education Link: eelink.net/ee-linkintroduction.html

Georgia Outdoor Classroom Resource Guide:
www.mindspring.com/~discoverygardens/occguides/occguides2.html

Alan Haskvitz's teacher/student resources: everychild.com

Starting a school garden: aggie-horticulture.tamu.edu/kindergarden/child/school/step.htm

Texas A&M site with many excellent links to school/youth gardening resources and activities: extension-horticultural.tamu.edu/county/smith/kids.html

Wisconsin Fast Plants: fastplants.cals.wisc.edu



©Linda Wiggan Kraft

Two Flynn Park Elementary School students use a Mylar template to space their seeds properly. Every student at the St. Louis school gets a chance to plant seeds and help tend the garden.

Helping Schools Build Gardens

Teachers ask “How do I get kids excited about math and science?” Parents want their children to make the connections about where food comes from. And most everyone wants today’s youth to get a handle on life skills beyond turning on MTV and instant gratification.

As a major support person for urban horticulture in Maricopa County, Arizona, Lucy Bradley believes gardening is one answer. She’s on the line fielding lots of requests for help from urban schools that want to get into gardening. “When students use a yardstick to stake tomatoes and chart their growth over time, they are learning important measurement skills,” says Bradley, an Extension Agent with the University of Arizona Cooperative Extension Service. “It’s a very effective way to teach skills because it’s not abstract.” Life skills are hard to teach, but in a garden behavior has direct natural consequences, she notes. “If you forget to water, plants die. You learn responsibility, planning and patience.”

“Gardening is discovery, so it’s harder to manage with a class,” Bradley says. “You have to structure a lesson plan differently. It’s no small thing to implement, and it takes courage.” To help teachers and others, she coauthored a reference book, *Success with School Gardens*, with Linda A. Guy, an herb specialist, and Cathy Cromell, an instructional specialist, and with the assistance of Phoenix master gardeners with school experience.

The initiating force for a garden may be one or two people, but including a host of folks—teachers, parents, administrators, custodians—is “very important,” Bradley emphasizes. If not, the burnout rate is high. “We hope we’re developing sustainable plans. It’s one thing to garner energy and support to create a garden but keeping energy and interest high to sustain it are equally important.” Master gardeners often help schools, but when requests outnumbered gardeners—Phoenix has some 90 school districts—she recognized the need for training and a manual that distilled experience for newcomers.

The book addresses three concerns: how to manage a project with the scope of a school garden, including funding and administration; how to grow vegetables in the low desert; and where to find lots more resources. “We will help with locating a site, we put up information on the Web, and we offer training workshops,” she says, “but we’re really interested in building skills in the community.” The school gardening track at the extension service’s summer conference has been filled the past three years, and a new February school gardening conference attracts at least 250 people. Bradley has also worked with a nonprofit organic farm to provide a training program with college credit for teachers.

Besides vegetable and flower gardens, wildlife habitats afford a number of schools a chance for students to connect with their environment, considered by researchers to be a significant prerequisite for environmental responsibility. Bradley worked with Lowell Elementary School, surrounded by public housing in central Phoenix, to create such a habitat in the inner courtyard for its more than 600 children,

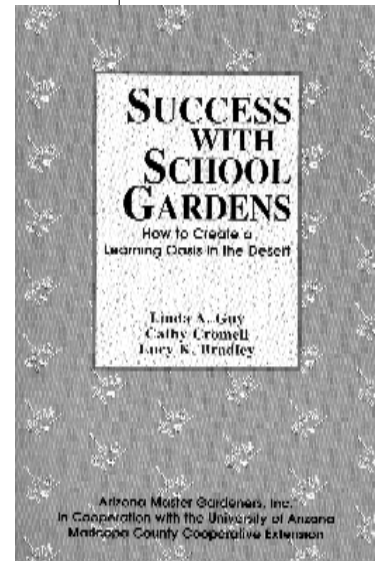
BOOK REVIEW

SUCCESS WITH SCHOOL GARDENS: HOW TO CREATE A LEARNING OASIS IN THE DESERT. Linda A. Guy, Cathy Cromell and Lucy K. Bradley. Phoenix: Arizona Master Gardener Press. ISBN 0-9651987-0-7 Pp. \$14.95

This concise, easy-to-read guidebook provides motivating lessons for successful school gardening. The subjects range from basic gardening techniques to tips on cultivating volunteers, supportive parents, teachers, and members of the community to fund raising. The book is loaded with research-based information about garden site selection, garden design, soil preparation, plant selection, use of fertilizers, pest management, container gardening and much more.

The techniques have been tested in the low desert, but could be applied to other areas where water conservation is important. The appendix includes a wealth of resources and technical assistance to aid both novice and experienced garden teachers.

I work with schools in Tucson, Arizona, and use this book continuously. I find its clear, readable design has answers that are quick and easy to find and that work!



REVIEWED BY
JULIE CONRAD,
PUEBLO GARDENS
ELEMENTARY SCHOOL

many of whom are considered “at risk.” The key to success, she says, is “a direct result of their ownership of the project.” Children, teachers, parents and administrators planned together for a year to design what they wanted and to devise how they would use the habitat. Teachers used vacation time to attend conferences on incorporating the habitat into the curriculum. The PTA sent the custodian to train as a master gardener. The children wrote stories and poetry about lizards and solved math problems related to landscape design. Nothing, including new trees, has been harmed. Says Bradley: “It has made a huge difference in the ambience of the school.”

“What we learned,” she writes, “was that the more involved the administration, the teachers, the students and the parents, the more challenges they overcame, the stronger their commitment and ownership of the project. We did not go in and give a garden to the school. We gave them the information and coaching they needed to create it for themselves.”

To order *Success with School Gardens* contact Arizona Master Gardener Press, 4341 E. Broadway Road, Phoenix, AZ 85040-8807, (602)470-8086 ext. 312; ccromell@ag.arizona.edu; or check the Web site: ag.arizona.edu/maricopa/garden/html/pubs/sch-bk.htm

BOOK REVIEW

DIGGING DEEPER: INTEGRATING YOUTH AND COMMUNITY GARDENS INTO SCHOOLS & COMMUNITIES. Joseph Kiefer and Martin Semple.
Montpelier, Vt.: Common Roots Press. ISBN 1-884430-04-X Pp. \$19.95

The publication of *Digging Deeper* could not come at a better time. The Garden in Every School Movement has renewed interest in school gardening. Teachers, parents and community residents who are interested in starting school gardens are going to be seeking answers to all kinds of questions. How do

you go about starting a school garden? Do I need anyone's permission? What about lesson plans? What about theme gardens? What happens when school is out? How do I make connections with people in the community? *Digging Deeper* supplies answers to all of these questions and more.

Joseph Kiefer and Martin Semple call upon their experiences creating school gardens, curricula, and food policy with their organization, Food Works, in Montpe-

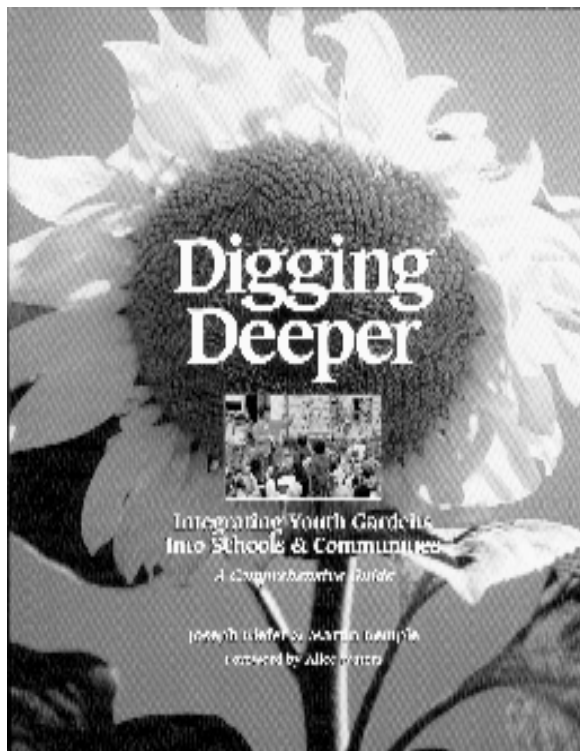
lier, Vermont, to put a wealth of information in the reader's hands. They include case studies written by others involved in school gardening, from Berkeley and Denver, to give the added benefit of this practical information. Although, for many, the "how to" chapters will be most useful in getting started, I would suggest first reading the last three chapters. These chapters make *Digging Deeper* stand out as a much more useful resource than other books on school gardening.

The subject of Chapter 8 is the evaluation of your school garden project. Thinking about evaluating a program before it begins may seem a backward way of approaching a school garden. Teachers or garden leaders, however, will often be called upon to justify the time or money that is being spent on the garden program. School boards, principals or funders will want some data to show that what they are doing is effective.

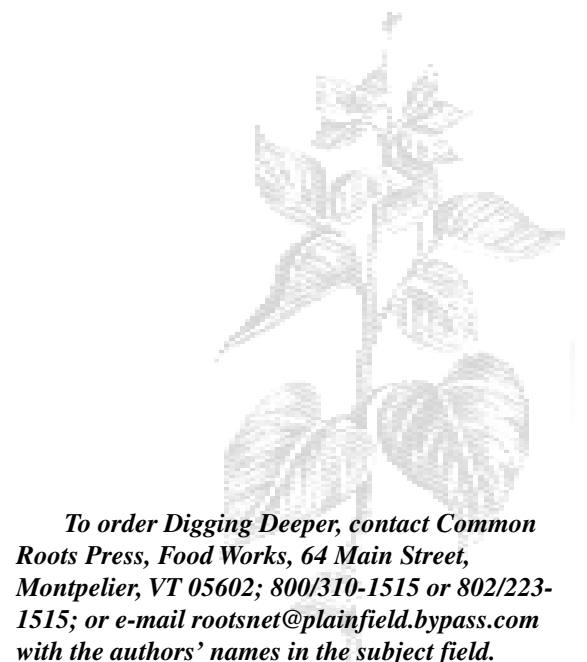
In order to show improvement in reading scores, for example, baseline data is necessary. This exercise will help to focus on the goals of the program and the decisions on how to design the program. *Digging Deeper* has a number of evaluation forms to copy. These forms include evaluations for the program as a whole, for the students and for tracking plant growth.

Learning about plants and food is an important first step for a child to take in a lifelong learning process toward a respect and sense of stewardship of nature. In Chapters 9 and 10, the authors ask the reader to think beyond the school garden and pose the question, "Is it enough to create a school garden or is there a bigger picture?" The answer is that there is much more that can be done to make connections between a school gardening program and ecological education, when it is so important to give students the tools they need to support the survival of our environment.

With this book, Kiefer and Semple have done a wonderful job of advancing the knowledge about the benefits of school gardening. The most important contribution of *Digging Deeper*, however, is to advance the discussion of how school gardening can play an important role in creating an ecologically sustainable education system within an ecologically sustainable society. Read for yourself and become a part of this discussion and grass roots effort.



REVIEWED BY
LENNY LIBRIZZI,
COUNCIL ON THE
ENVIRONMENT OF
NEW YORK CITY



To order Digging Deeper, contact Common Roots Press, Food Works, 64 Main Street, Montpelier, VT 05602; 800/310-1515 or 802/223-1515; or e-mail rootsnet@plainfield.bypass.com with the authors' names in the subject field.

Drawing by Robin Wimbiscus, from *Digging Deeper*

Toward a Sustainable Culture

When Joseph Kiefer's parents decided in the late '50s that it was time to get out of the city and head for a farm, they may not have appreciated just how much that would direct their son's life. The Kiefers, from the Bronx and Queens, settled on a family farm in the Hudson Valley, and their oldest child's early years "really were very much shaped by the land," he says. With five younger sisters and brothers, Kiefer was top-dog in the chore department, getting up at dawn to help care for 25 milking cows, pigs, sheep, chickens, and assorted other duties. His family was new at learning farm skills, and it was a struggle.

"We were already seeing farms failing because of technological advances and innovations not sustainable at a small scale," he notes. Still, when he went to Hudson Valley Community College, he lived on a friend's dairy farm with the aged parents and grandmother. "That was totally out of choice," he says of his second bout with farm work. "I have this love of cows now!" He counts among important influences knowing "this bald-headed, silver-toothed man who always had a smile on his face" who taught him to make the most of every day, and who gave him a renewed sense of connection with animals. In 1975 Kiefer graduated from the State University of New York at Cortland and began teaching at Dover Environmental Education Center, a private residential center in Dover Plains, New York, where fourth, fifth and sixth graders from public schools would come for a week at a time.

"It was a transforming experience for the students," Kiefer says. "And what it said to us was, if that one week can be so profound, why isn't their regular schooling more like the environmental education center?" That question led him to the Institute for Social Ecology at Goddard College in Plainfield, Vermont, for graduate study. By 1980 he had a finished thesis, outlining the theory and process for transforming public schools into community centers focused on food and ecological security, and a master's degree in hand. Says Kiefer: "I didn't know it at the time, but that became my life work."

Now a resident of Montpelier, the capital of Vermont, he became a home-school consultant, wrote curriculum, and served on a task force on hunger. "I was shocked. I didn't think there was so much hunger here, so commonplace." He began a program on hunger and garden science to develop curriculum for home schooling, and eventually earned official approval, a difficult task in a state that frowned on home schooling. Kiefer in 1985 cofounded the Vermont Food Bank, and also served on the governor's task force on hunger, which meant traveling Vermont and taking testimony from a wide assortment of people.

Talks with teaching friends led to excitement

about "making connections among disciplines that are conventionally taught in isolation, and we set up a garden science laboratory behind one school." The garden, at a middle school, had fruit trees, herbs, a compost system, an intensive food production area, and a section that was planted and harvested for the local food shelf. Kids who helped in the summer took food home and some was sold at the farmers' market. Kiefer began as a volunteer with an idea and then wrote grants "to pay myself." Later, looking at the city of Minneapolis's food policy with sixth graders, he asked them to consider food security in Montpelier. "They did historical research. They wrote an awesome document, in sixth-grade language. Front-page news, a presentation to city council, lots of publicity," he says happily.

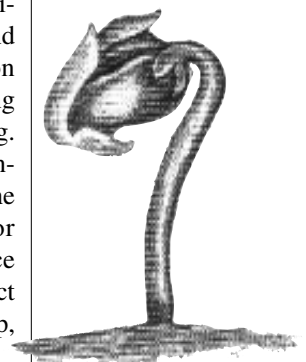
All Kiefer's work brought him to the realization that Americans were alleviating symptoms, not solving the problem. He and Martin Kemple, who had been investigating hunger in Africa and had visited schools in the bush with gardens wrapped around them, with similar philosophies, decided to form the nonprofit Food Works in 1988. "Could a garden be a resource that was about prevention, that was across curriculum and interdisciplinary?" we asked. After working with several schools, they learned that for school gardening to be successful, teachers needed a course on how to integrate the garden into the curriculum. "We hadn't given them the whole story. They needed the connections made for them," Kiefer explains. That's what prompted Digging Deeper, a complete resource on school gardening. The last two chapters in particular describe their vision for the future.

Now, Food Works' Common Roots program, a holistic K-8 approach, focuses on three areas: ecological literacy, food and agricultural literacy, and cultural literacy, which looks at local history and uses the experience of community elders. The program's name refers to knowledge about each community's heritage and environment, "the common roots that sustain us," that is "increasingly disconnected from the school experience." Food Works offers graduate-level courses for teachers, customized in-service training, guidebooks, and on-site consultation, and facilitates construction of indoor and outdoor gardens and habitats. It sponsors summer garden-and-nutrition education for at-risk children, and is currently putting together preservice education for teachers-in-training.

Joseph Kiefer has called for the Vermont General Assembly to put a garden in every school by the year 2001. "How do we cultivate a culture for sustainability?" he asks. "A garden is a perfect place to start. It encompasses all disciplines. It's a perfect place for service learning, and it teaches stewardship, grace and empowerment."

PROFILE

*They learned
that for
school
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garden
into the
curriculum.*



HOW TO DISCOURAGE VANDALISM



Tilling and toiling is tough enough. But when the tomatoes ripen and the squash is the perfect size and the vegetables disappear before you've had a chance to harvest, it's very discouraging. You hope that the food didn't go to waste, that at least some hungry person enjoyed your work.

But when plants you've watered faithfully, mulched and debugged and watched over carefully, are destroyed by thoughtless vandals, it's utterly depressing. Food is wasted. Beauty destroyed. And the gardeners are sick at heart.

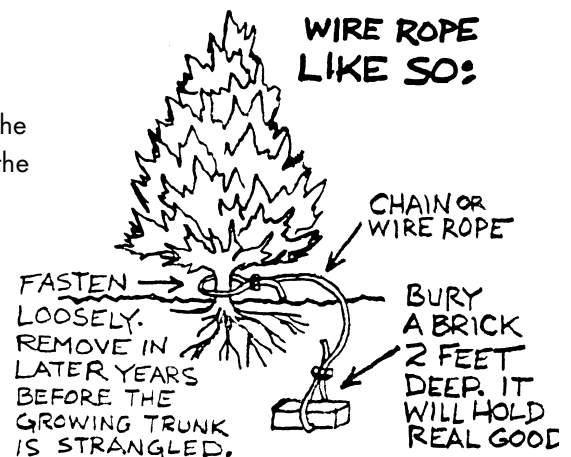
Fences—chain link, wrought iron, wood or vinyl-covered chain—and locks deter mischief at a number of gardens, but at others, especially in out-of-the-way areas, the locks are simply broken. At fenced and locked gardens, one suggestion is to put up a sign inviting inquiries about participation in the garden, more friendly and communal than unadorned chain link.

Community gardeners agree the best way to avoid vandalism and theft is for the community to take ownership of the garden and involve lots of people, especially neighbors, who will notice comings and goings. Invite neighborhood kids into the garden with you to see what's growing. Make the community part of the pride and satisfaction in tending a bright spot in the neighborhood.

Still, developing community friendships takes time and nastiness can happen under the best circumstances. Here are some specific tips from community gardeners about how to minimize problems and to deal with vandalism and theft if it occurs.

General Tips

- Make friends with people who live near the garden.
- Hold "open house" and sponsor events or activities at the garden, especially if it's fenced and usually locked, so neighbors will feel they have a stake in the space.
- Keep the garden well tended and encourage people to come regularly. Assign shifts for gardeners if necessary.
- Harvest produce regularly.
- Plant more than you need and share extras.
- Report any incidents of theft or vandalism to other gardeners, the police, the neighborhood watch and others with an interest in the outcome. Enlist non-gardeners in the neighborhood to keep a watchful eye on the garden too.
- Repair damage as quickly as possible. Suggest that all the gardeners pitch in to restore order. Have "graffiti guerrillas" clean up scrawls and marks right away. Graffiti rubbed out quickly may stop reoccurrences.
- Encourage others to share their produce if theft occurs.
- Listen supportively and compassionately to a gardener whose plot is damaged. Caring counts.



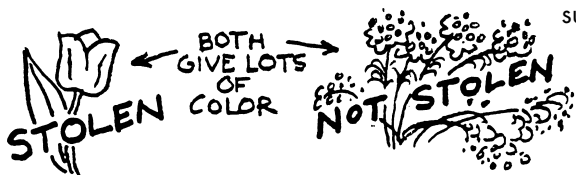
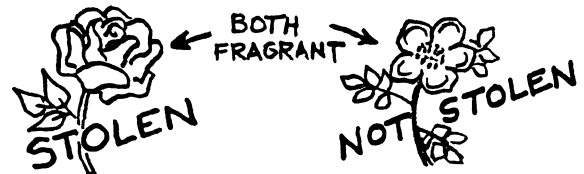
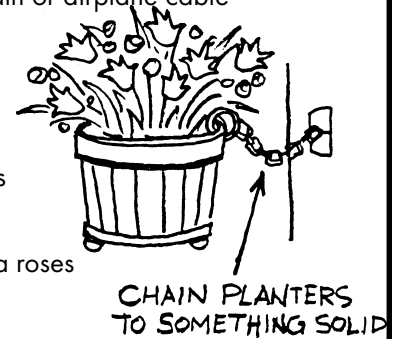


- Post signs if problems occur that say you have notified the police and neighbors are watching the site.
 - Warn a gardener who takes another gardener's produce that he or she is jeopardizing the opportunity to participate in a community setting. That may be all it takes to stop a problem.
- Design a gathering space in the garden, for kids and adults, to help promote community building activities and to provide a social space.
 - Plant Boston ivy on walls for graffiti-free backdrops.
 - Use pulverized egg shells, flour or wood ashes to dust plants. Plants may be left alone if they look treated with a pesticide or an unknown substance.
- Plant flowers thickly around the perimeter to make vegetables more difficult to get.
- Protect expensive evergreen shrubs and trees, and garden furniture, by tying them down when they are still small enough to be taken. Use chain or airplane cable (wire rope).

Tips on What to Plant

Some kinds of flowers and edibles are irresistible to thieves. In public areas, use plants that aren't taken very often.

- Plant single hybrid and species roses—and get a bonus: hips. Double hybrid tea roses on long stems are tempting and more likely to be taken.
- Consider plants with less-familiar flowers and ornamental grasses that may not attract thieves the way large flowers on long stems may.
- Plant odd-colored vegetable varieties—yellow tomatoes, strawberries and raspberries. They will deter picking far more than the “real thing”—red tomatoes, strawberries and raspberries.
- Hide tropical-looking plants with big and/or colorful leaves, like caladium, hosta, rhododendron, aucuba and rue, behind plants with smaller, more delicate or less-interesting leaves, like abelia, sedum, sweet woodruff, thyme, cotoneaster and artemisia.
- Protect your garden nature's way. Use thorny shrubs that will keep two- and four-legged creatures from walking on delicate plants. Depending on your region, some good thorny and prickly shrubs to use are rugosa rose, barberry, flowering quince, blue holly, juniper, pyracantha and raspberry. Just make sure they are trimmed so passersby aren't snagged accidentally.



- Grow your own barbed wire fence for tough problems: Plant a trifoliate orange tree (*Poncirus trifoliata*).

Special thanks to New York City community gardener Kim Mulcahy for the use of his drawings and his tips about plants, to Kathy Petreré for her help, and to Erin Brubaker, Barbara Donnette, Karen Guz, Betsy Johnson, Ann Pearce and Viv Veith for sharing their experiences on the community garden Internet list. (To subscribe to the list via the Web, visit https://secure.mallorn.com/mailman/listinfo/community_garden, or send an e-mail message with subject or body “help” to community_garden-request@mallorn.com.)

Philadelphia: A Horticultural Hotbed

When William Penn founded Philadelphia, his “Holy Experiment” offered religious tolerance for all in a “Greene Countrie Towne.” Laying out the city in a checkerboard fashion, he planned Philadelphia around green squares. It wasn’t long before wealthy merchants developed beautiful estates, and dedicated amateur botanists and scientists established a tradition of discovery. The city grew and its humbler residents found pleasure as well in green and open spaces.

That horticultural legacy continues. Philadelphia’s Fairmount Park, with close to 9000 acres, is one of the world’s largest urban park systems. Philadelphia boasts the nation’s oldest operating horticultural organization, the Pennsylvania Horticulture Society (PHS), founded in 1827. The Philadelphia Flower Show, produced by PHS, is the largest indoor horticultural event in the world and has been drawing gardeners to the city since 1829. Philadelphia Green, the horticulture society’s urban greening arm established in 1974, is one of the most comprehensive programs of its kind in the U.S. The Pennsylvania State Urban Gardening Program was among the first U.S. Department of Agriculture urban gardening programs started in 1977 and offers technical advice and educational support for more than 500 community food gardens. The Neighborhood Gardens Association/A Philadelphia Land Trust (NGA) has been instrumental in preserving community gardens that might otherwise be lost.

“It’s such a good climate,” says Patricia Schreiber, outreach manager for the Pennsylvania Horticultural Society. “You can grow a lot here that grows farther south and a lot that grows farther north, sort of a meeting of the zones.” No wonder she calls the city a “horticultural hotbed.” Philadelphia, the City of Brotherly Love, will roll out the welcome mat as the host city



©Ira Beckoff

Philadelphia Green has brought color and life to many city vistas, including this center parkway at 20th and Spring Garden Streets.

**BY PAMELA R.
KIRSCHBAUM**

for the American Community Gardening Association’s 20th Annual Conference, a return engagement after a 10-year hiatus. The local partners hosting the conference include PHS’s Philadelphia Green, Penn State’s Urban Gardening Program, NGA, Isles Inc. of Trenton, and the Delaware Center for Horticulture in Wilmington. The 1999 conference will be September 30–October 3 (see page 23 for details).

Greening a City

Since its inception in 1974, Philadelphia Green has worked with more than 700 community groups on more than 2,000 projects. Begun with Community Development Block Grant money, the program provides site and organizational development, materials, technical know-how, and training. It works with groups in low- and moderate-income neighborhoods to plan for open space and redevelopment of vacant land; to revitalize neighborhood parks; start flower, vegetable and sitting gardens; and beautify streets. Nurtured from the beginning by J. Blaine Bonham Jr., its executive director and the society’s vice president for programs, Philadelphia Green has honed its community development skills to become a model for other cities faced with decaying urban structures and a huge inventory of vacant land.

Philadelphia Green is fortunate to have two ma-

for foundations, the Pew Charitable Trusts and the William Penn Foundation, along with other corporate, private and foundation donors, and a city government that provide consistent funding and support for the substantial greening projects undertaken through the years.

“What we are most proud of,” says public relations coordinator Steve Maurer, “is that when we get involved with a neighborhood, not only do we help people green, but we become a community organizing force. Almost every time we work with a group of committed neighbors, whether it’s to plant trees or to fill pots or to turn vacant land into a garden, we serve as a catalyst for development in the community.” That the neighborhood looks better with help from Philadelphia Green is a given; what also changes, he says, is that neighbors “find a whole lot in common when they’re watering a plant to keep it alive.” They talk to each other, share hoses and buckets, sit on their stoops again, and begin working together, Maurer says.

Philadelphia Green’s community gardens range in size from a single-house lot to four-plus acres. Some have 50 or more plots for growing vegetables, and serve as social centers for gardeners and neighbors. Six “keystone” community gardens—prominent, large-scale landmarks in their neighborhoods—merit special attention to ensure their sustainability beyond what volunteer gardeners are able to provide. They are mature gardens that share a long history with Philadelphia Green. The program provides a reference manual to get people started and works with NGA to keep the gardens for continued community use. A popular contest garners entries of more than 500 city gardens of all description each year.

To get Philadelphia Green’s attention, an organized community group has to make some kind of commitment: sponsor a petition, clean up a lot, put in some trees. Asking “When will Philadelphia Green water the garden?” pretty much rules a group out. While the screening process eliminates some groups, Maurer says, the number of requests is more than the program can handle. As a result, two outreach programs offer training to community groups outside program-funded areas. Garden Tenders, begun in 1995, trains people to start their own gardens and use resources within their communities. Groups that complete its five-session garden course develop a wish-list and receive basic materials such as tools, fencing, soil, plants and wood chips, then do most of the work themselves. Tree Tenders teaches basic tree care and community development skills.

Started in 1993, Tree Tenders now includes more than 900 people from 86 community groups who have planted 1,500 trees and care for more than 8,000. “People have an interest in improving their neighborhood,” says Mindy Maslin, project manager of environmental education. “We train them in organizing

the community, recruiting volunteers, working with politicians, and raising funds. Taking care of the trees, we hope, leads to developing other aspects of their community.” Two new programs reach school children: Adopt-A-School Project conducts tree education sessions in local schools; and Tree Tenders for Teachers, in concert with the Philadelphia School District, prepares teachers to help students meet the mandatory service-learning requirement scheduled for 2002. Students must then present a portfolio of educational community service projects to move to each divisional level. Learning about and caring for trees is one project students can do. So far, more than 100 teachers have attended the teachers’ program.

Philadelphia, like many large older industrial metropolitan areas, has an enormous inventory of abandoned land and crumbling structures as citizens have left the city. In the 1980s the society’s Greene Countrie Towne program introduced neighborhood-based greening efforts in eight low-income communities and was an effective tool in revitalization. Neighborhood volunteers and the staff of community agencies worked together to halt the ongoing decline. But growing concern about the inability to keep up with proliferating vacancy problems led the society, in a 1995 report, to define the issues, outline recommendations, and urge city government to produce a new vacant-land policy. “We are fighting to get ownership of vacant land,” says Maurer, “and to get the city to take some responsibility for it.”

The focus is now on working with neighborhood community development corporations to incorporate consideration of vacant land in their plans for new housing and commercial development. In the fall of 1995, Philadelphia Green began a five-year pilot project with the New Kensington Development Corporation to consider both the interim management of vacant land and its future use to support the community’s open space needs. Partners include the city’s housing and community development and planning offices, the Redevelopment Authority, the Pennsylvania Environmental Council, and Neighborhood Gardens Association. The groups have constructed a community garden center to serve as a neighborhood source for gardening materials and a base for gardeners, volunteers, and community supporters in efforts to create a sustainable system.

“Green space is beneficial to developing and strengthening neighborhood structure,” Maurer notes. “People feel comfortable being in the neighborhood—it maintains the development socially, and then economic development may follow. Our goal is really the neighborhood structure, and we try to make any improvements self-sustaining.”

In partnership with the Department of Recreation, the organization is revitalizing park sites, benefitting from park maintenance work and capital funds from

“Green space is beneficial to developing and strengthening neighborhood structure . . . it maintains the development socially, and then economic development may follow.”



the city for improvements. To sustain reclaimed inner-city parks, Philadelphia Green offers both organization-building support and horticultural training for park staff and volunteers. In addition, public landscaping projects with a variety of partners continue to improve general urban sites along bridges, highways, at Philadelphia International Airport, and other public areas. The organization is rehabilitating and managing 39 acres at Penn's Landing, developing the design for a "Gateway to Center City" on John F. Kennedy Boulevard, and has redesigned landscape planters along the Avenue of the Arts.

"We're working very closely with the [Philadelphia] art museum, the Fairmount Park Commission, and community groups to reestablish the landscaping around the museum," Maurer reports. The partnership, he says, has been very successful in renewing the azalea garden, a favorite destination for park visitors behind the museum. Volunteers now help with its continued care.



©Ira Beckoff

Volunteers now help care for the restored azalea garden, a popular destination for visitors near Philadelphia's art museum.

Says Maurer: "Cities will not survive unless we address the quality of life, and as neighborhoods become stewards of the land, that tips a city in the right direction. That's what we believe, and we think of ourselves as part of the comprehensive design, not an afterthought."

In 1993, ACGA honored Bonham, a founder of the association and longtime board member, and Jane Pepper, Pennsylvania Horticultural Society's president, with certificates of recognition for their "extraordinary commitment to community greening in Philadelphia and the nation." The society houses and provides a variety of services for ACGA's headquarters.

Securing Food

For a special issue of Penn State's Urban Gardening Quarterly celebrating the Urban Gardening Program's 20th anniversary in 1997, its first director, Libby Goldstein, reminisced about her struggles over

program delivery and her labor to win appropriations from local and federal politicians. A community gardener hired for her political savvy, she loved going to work but sweated over a fish farming project and its many problems. And she talked about the great gardeners she had met and worked with. Ultimately, she forged cooperative relationships and a program that helps hundreds of gardens.

"Libby made the program what it is," says Terry J. Mushovic, who succeeded her as director and who recently became executive director of Neighborhood Gardens Association.

The program, administered through Penn State University Cooperative Extension, began when Congress funded urban gardening programs through the U.S. Department of Agriculture in pilot cities. Despite grave cutbacks in federal funding to such programs in the early '90s, Philadelphia's program, which serves some 2,700 families who produce millions of pounds of vegetables each summer, continues to thrive; half its funds are federal, half state. Through Goldstein's efforts, the state agreed in 1987 to provide matching funds. Says Mushovic: "It's probably one of the few urban gardening programs that started out of the USDA funds still going strong."

Last year, eight staff members assisted at 480 community gardens where gardeners grew a whopping \$3.27 million worth of produce. More than 1,000 youngsters took part in gardening projects at schools, libraries, summer camps and community centers; 800 people called the hotline with food-growing questions; and people around the city attended 65 workshops and several day trips.

Although Penn State's program doesn't build gardens, it does provide advice on how to begin. "If someone calls," Mushovic explained, "the advisers walk them through all the pieces they need. The program has a resource guide that tells them where they can get free compost, who they might want to approach for fencing, and such." Philadelphia Green's waiting list over the years has prompted some people to start gardens independently. Guides and publications, including 75 fact sheets, are in Spanish and English. At six demonstration gardens staff advisers show a variety of techniques "to maximize yields and minimize harmful environmental impact." Volunteers help with educational outreach as well. (Penn State has a Master Gardener Program but not in Philadelphia.) Says Mushovic: "This program is very important to the people of Philadelphia and their quality of life."

Garnering Garden Resources

When people transform borrowed land from a trash-filled eyesore to a verdant place of bounty, it's pretty disheartening to lose it. But gardening on someone else's land is often the only choice for community gardeners, especially in poor, highly dense areas.

Neighborhood Gardens Association, born in 1986 and staffed in 1988, has acquired 23 community gardens comprising almost eight acres to hold “in trust” and by agreement for local community groups and future gardeners. Spearheaded by the horticultural society, the extension service, city representatives and community gardeners, NGA is a private, nonprofit land trust that concentrates its efforts mainly in low- and moderate-income neighborhoods. It is funded by public and private donors and complements the work of Philadelphia Green and Penn State’s Urban Gardening Program.

Using a variety of preservation techniques, NGA has rescued gardens through purchases, and auction bids and by assisting the transfer of federal land to the city for management by the trust. The organization helps community groups with research, legal work and negotiations. NGA publicizes its services, but has a careful selection process before going to bat for a gardening group. Since the land trust doesn’t maintain a garden once it’s acquired, the gardeners must be organized and responsible about managing and keeping up the space—that’s part of the agreement they sign with NGA.

Perhaps ironically, one of the garden groups that called on NGA for help was Southwark/Queen Village Community Garden, where Libby Goldstein began gardening. The garden was on federal land. Goldstein knew the ropes and eventually the gardeners were able to get the National Park Service to lease the land to the city for ten years. Still, that wasn’t permanent, and after more negotiating, and agreement by the federal agencies involved that the property was well maintained, Southwark was on track to be given to the city. Now all the gardeners needed was \$1 million of liability insurance to satisfy city government. Neither the garden nor the neighborhood association could afford it, so Goldstein, in on the formation of the land trust, urged fellow gardeners to turn to NGA for help. NGA carries the insurance, the city licenses the property to the trust, which in turn signs a garden agreement with Southwark, now 23 years old and gardening on preserved land.

Residents benefit also from the Philadelphia Urban Resources Partnership. Philadelphia is one of only a handful of cities to have federal funding specifically earmarked for natural resources grants. The partnership, a team of federal, state and city agencies and public and private nongovernmental organizations, has overseen \$1.5 million in grants the past three years for such projects as a community garden in Chinatown, environmental leadership development for minority students, neighborhood Tree Tenders groups, restoration of Awbury Arboretum, and Lily Yeh’s Village of Arts and Humanities.

And the city is blessed with Fairmount Park, 63 neighborhood and regional parks that comprise the



Penn State Urban Gardening Program

largest municipally operated landscaped park system—almost 9,000 acres—in the United States. Best known is a 4,400-acre swath of green along the Schuylkill River and Wissahickon Creek. Within the parks are Philadelphia’s premier cultural and recreational resources, including the art museum, zoo, a performing arts facility, and more than 90 historical buildings and sites. The Horticulture Center, with rebuilt greenhouses, hosts the events of numerous greening groups, including the Pennsylvania Horticultural Society’s Harvest Show in September. The Fairmount Park Commission oversees gardens, rivers, streams and paths and cares for some 250,000 street trees

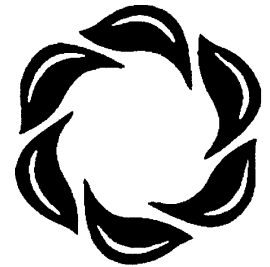
A gardener checks her plot at the Garden of Eatin’, one of Penn State Cooperative Extension’s Urban Gardening Program’s community gardens.

Sharing the Vision

Two regional neighbors with longtime support for community gardening and greening are the Delaware Center for Horticulture in Wilmington and Isles, Inc., in Trenton, New Jersey. The Delaware Center, which serves Wilmington and New Castle County, offers

Celebrate! The Hope of the Harvest Is in the Seed

September 30 – October 3, 1999



The ACGA celebrates its 20th Annual Conference in Philadelphia, home of its national office and a region with long and warm ties to the association. The conference will offer a mix of presentations to meet the needs of all participants, from the newly involved to the seasoned professional. Interactive sessions, professional development workshops, exhibits and networking will engage and instruct you.

The 1999 conference, at the Holiday Inn in Old Town, is a great opportunity to share experiences and learn from old and new friends.

If you would like to attend or need more information, please contact Patricia Schreiber, Philadelphia Green, Pennsylvania Horticultural Society, 100 N. 20th St., 5th Floor, Philadelphia, PA 19103-1495. Phone: 215/988-8841. Fax: 215/988-8810. E-mail: pschreib@pennhort.org.



educational programs, demonstration gardens, neighborhood planting projects, gardening resources, a garden contest, hands-on workshops, plant sales and more. Almost half the center's support is from memberships and donations, with another 44 percent from city and state grants for

IT TAKES A VILLAGE

"I came to North Philadelphia, an inner-city area, to convert an abandoned lot into a garden. I came here after 20 years of searching for who I am . . ."

Lily Yeh, a Chinese landscape painter and installation artist, came to North Philadelphia in 1986 with a small grant, uncertain what to expect and what to do, and with just some

young children to help, drew a circle on the land. "Symbolically, it was the center in my own being and the center of the people's being," she has written. "And it was literally from this circle and from a sense of center in this abandoned lot that the Village of Arts and Humanities unfolded through the years."

Now showered with impressive awards and grants, internationally celebrated, Yeh has in a dozen years transformed some 55 abandoned properties into a major arts, culture and social community of gardens and parks, studios and workshops, and low-income housing where neighborhood residents, artists, builders and teachers work together. More than 3,000 children, teens and adults participate in village programs—theater and art, crafts, writing, festivals, construction and renovation, and, the cornerstone of revitalization, the reclamation of land into safe, beautiful public spaces to grow vegetables, study nature and come together for communal events. The Magical Garden, a community flower garden, has a 60 by 20 foot painted mural of fanciful, stylized flowers, people, birds and insects. A sparkling tree of life adorns a building and low walls are sculptured breathing elements.

From cement trees she built with children in the first garden when no money was available for living trees to the famous alley aglow with mosaic angels, full of color, strong and protective, she designed, Yeh has unleashed transforming forces of vitality and meaning in a blighted area. Children especially reap the benefits, both at the village and through outreach.

"We have done quite a bit with neighborhood schools in our area since 1992," Yeh says. "Art plays a very significant role in our greening projects." The village helped Hartranft Elementary School acquire two vacant lots across from the school to create a garden. With the school and the Peopling of Philadelphia Collaborative Inc., Yeh's group created the "Small Learning Community," an activities-based curriculum for environmental education for grades 2-5. Teachers, parents and students created the garden beds with top soil and wood chips from Philadelphia Green and a tree company, and each child put a plant into the ground as the garden was taking shape. Now the children are participating in the design and painting of a mural, the symbol of learning during the ongoing, multifaceted project.

Among the village's many activities is a community farmers' market, staffed by local residents and held each Saturday from July through October. The market offers fresh produce for sale at affordable prices, health screening, and food demonstrations. Local gardeners have joined in to sell some of their own produce and plants. The village's vegetable garden, run completely by the community, won first prize in Philadelphia's 1997 citywide contest.

"Art here," writes Yeh, "is not something we go to see. Art is the structure of everything I do in transforming this community, in building people, in educating our children. Art is the air that we breathe. Art feeds into our spirit and soul."

various programs. The city also contracts with the center for public landscaping such as tree planting and other services.

With 72,000 residents and 25 community gardens for some 150 gardeners, Wilmington ranks high in number of gardens for its population size, notes Khawand Canty, the community garden specialist and outreach program manager. People who want to start a garden call Canty, he looks at the site, helps organize a community meeting, and generally steers them through the process. "We help with funding and training and technical assistance," he says, "but we don't do any maintenance. If we did, it wouldn't be a community project." The center does offer help with supplies. Currently Canty is setting up a revolving fund to provide more resources for community gardeners, most of whom are low-income city residents. "I do a survey or call the garden captains and ask what they'd like to have this year," he explains. "Sometimes it's tools or hoses or lumber for raised beds. Sometimes it's negotiating water access with the city." A tool loan program benefits from corporate and member donations.

Sacred Garden, the largest, features a mural done with the aid of a Philadelphia artist, and boasts two councilmen among the 12 families, mainly Hispanic, who garden there. Reaching out to young people is one of the center's newest efforts, Canty says. A "Grow For It" contest has second graders vying to grow—any way they can—the biggest bean plant in the county. Says Canty: "The whole object is to encourage them to experiment with various soils and water and light and so on."

A free urban gardening fair in late March kicks off the gardening season with free seeds, a marketplace with wholesale growers selling their wares at a discount, and workshops—how to garden without hurting your back is one. "It's the only one in the region that we know of," Canty says. This year's theme for the seventh annual fair was container gardening, good for everyone with even a modicum of space. Also in process are new gardens at two schools, a charter school and a public vocational-technical high school, which is putting in ethnic theme gardens. "Each will have a bed with a mural behind it, for example, a French bed with appropriate plants and an Eiffel tower," Canty says. Last year, a youth garden he oversees won a John Deere Kids Seeds of Hope Award (see page xx for more about the awards).

Founded in 1981 by Princeton University students and professors with a mission "to foster self-sufficient families in sustainable communities," Isles began by offering technical assistance for community gardening and nonprofit housing development. It now supports 65 sites throughout the city, and has expanded over the years to include planning and preserving parks and other open spaces, leadership development, a

neighborhood tree project, an in-house affordable housing program, job training, and two recent initiatives: an environmental health program and a community farm. The nonprofit community development and environmental organization, with a host of projects and numerous awards to its credit, has created a nature lab for urban youth, the Perry Street Children's Garden; organized a public-private coalition that drafted and implemented a new open-space master plan for Trenton; and established central New Jersey's first urban environmental center.

More than 3,000 city residents benefit annually from Isles' urban agriculture program, which helps turn vacant lots into vegetable and flower gardens. One of Isles' newest community gardens, Sweets Fountain Avenue Garden, created by a dozen residents from two warring neighborhoods, is bringing people together at a neutral site and healing problems. Another garden represents a partnership between Isles and the Corporation for Nonviolence and has hosted an after-school program for children.

Funded by a three-year USDA Cooperative State Research, Education, and Extension Service (CSREES) grant, a community farm got underway last year. The grant is from the Community Food Projects Competitive Grants Program. With only one grocery store for more than 80,000 city residents, says Lisa Kasabach, urban environment director, "the idea is to get a greater supply of fresh, nutritious produce out to people." Vegetables and herbs are sent to two large food security agencies, Trenton Area Soup Kitchen and Mercer Street Friends. Three farm stands, staffed by city folks, also offered the weekly harvest.

Mercer County Community College donated a five-acre site, which includes greenhouse space and facilities for perennial production. "We're taking it in stages," Kasabach says. "We had one acre in production last summer and we are bumping it up to two acres this year." A farm manager and several seasonal assistants worked the farm, and a training program is in the works.

"Mercer County is a great partner," Kasabach says. "The students in Mercer's horticulture program are using the farm as an outdoor classroom, which is great." Several "harvest days" opened the farm to community volunteers who helped gather the produce. "People from around the county came with their kids to help and it was very successful," she says, "a great way to get people involved in the farm." School groups also visit the farm for hands-on lessons, and "that's been really great as well as a tool to learn where food comes from and what it takes to produce it."

Conferring and Celebrating

Ten years ago Philadelphia hosted "The Beet Goes On," a memorable annual conference for many ACGA members. It seemed fitting, in honor of the

20th anniversary conference, for the Delaware Valley greening groups to play a return engagement. "They have a long history with ACGA," says Board member and program chair Leslie Pohl-Kosbau, "and they really wanted to have the conference."

Before the Board decides on a site, she says, "We try to find someone who has some experience attending ACGA conferences, and we look for a region where the local groups are fairly strong because they are asked to get lots of in-kind donations and plan a fund-raising auction." ACGA also tries to vary the region each year. Says Pohl-Kosbau: "We like to go into an area to support its programs and show the politicians and local folks that community gardening is important by having a conference there. The conference often acts as a catalyst for the organizing groups to pull together for something." A Board member, in this case Tessa Huxley, serves as liaison between the organizers and ACGA.

The Delaware Valley reflects the many successes that are found throughout the national network that is the American Community Gardening Association. What better way to celebrate ACGA's 20th annual conference and the 25th birthday of Philadelphia Green than for Philadelphia to again serve as host city. "Community gardening has the ability to be one of the key tools for neighborhood revitalization," says Philadelphia Green's Blaine Bonham. "The fruits of our labors must continue to be shared—our ideas and perspectives exchanged and discussed—so that this vital and important work will continue and thrive in the future.

"We look forward with anticipation to a dynamic and exciting 1999 conference. And thank Penn State Urban Gardening, Neighborhood Gardens Association, Delaware Center for Horticulture and Isles Inc. for partnering with us to organize this year's gathering of community gardeners and greening enthusiasts from around the country."

"The fruits of our labors must continue to be shared—our ideas and perspectives exchanged and discussed—so that this vital and important work will continue and thrive in the future."



Village of Arts and Humanities

Artist Lily Yeh helps Hartranft Elementary students plant a small tree nursery at their school near the Village of Arts and Humanities.

Youth Gardens Win Recognition from Ertl

A new nationwide program, John Deere Kids Seeds of Hope, cosponsored by the John Deere Kids line of preschool toys and The Ertl Company, in conjunction with ACGA, has honored the Top 25 “most remarkable community gardens tended by children and teen-agers.”

strate the power of community gardening to impact neighborhoods” and were strong contenders.

The Ertl Company, an established toy and collectible manufacturer, has well-known farm toy roots and also markets model kits and other products. Winners received a selection of new gardening tools, John Deere Kids hats, an award certificate, and a collection of John Deere Kids preschool toys to present to a child-care center of its choice.

Winners were cited for their community service, hard work and commitment. The Troy Chavez Peace Garden in northwest Denver, for example, was created to memorialize a murdered teen-ager and, with the help of more than 150 neighborhood youth, “transformed gang territory into a safe, community gathering place,” the award notes. The young people are involved in every aspect of the garden, and participate in an apprenticeship program with local artists and horticulturists.

Denver Urban Gardens helped neighborhood leaders and kids establish the Peace Garden’s theme during design workshops. Each garden was nominated by an ACGA representative.

The Children’s Garden in Akron, Ohio, another winner, is built on 19,710 square feet of land that had been neglected for 30 years and was one of the city’s “most notorious illegal dump sites.” Now filled with vegetables and flowers, the garden is the work of more than 75 children, who clear debris, sow seeds and tend the growing plants.

The garden, the first of its kind in Akron, is providing children with a chance to learn about nature and the environment and to gain skills in science, math, writing, recycling, art and history. It is part of Let’s Grow Akron Inc.’s community gardening program.



Lynda Banzl

Everyone celebrates Eastern High School Greenhouse and Garden Club’s Seeds of Hope Award at the presentation by ACGA President Tom Tyler in Washington, DC. Students gave the Ertl toys to young gardeners from the Kids’ House Garden at Park Morton public housing. Judy Tiger, executive director of Garden Resources of Washington which advises the gardeners, also was present. Club members earn community service hours for their work in the garden and greenhouse, where vegetables, herbs, house plants and fruit are raised organically. They also help out at a demonstration farm in Anacostia.

Winning gardens had to have “significant involvement” by children under age 18 and preferably “bring beauty to an urban setting.” Gardens that transformed vacant land or distressed areas “more clearly demon-

DELAWARE VALLEY RESOURCES

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Neighborhood Gardens Association/
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Urban Gardening Program
 Penn State Cooperative Extension
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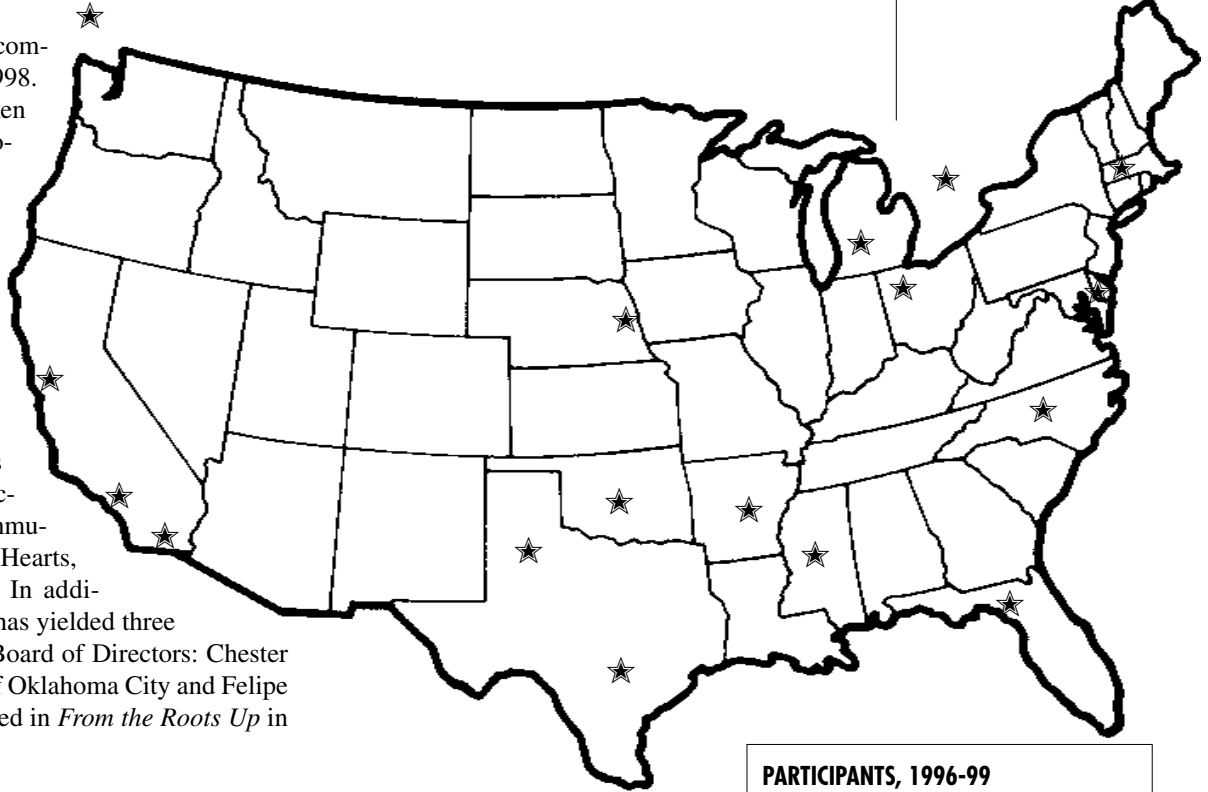
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City of Philadelphia— Information and News
 Web: www.philadelphia.org/frame.html
www.liberty.net.org/ln/menu.cgi? .1

From the Roots Up: Three Successful Years

REPORT

From the Roots Up completed its third year in 1998. The groups that have taken part in the mentorship program are making wonderful contributions to the community gardening movement, locally, regionally and nationally. In 1999, Red Dirt Gardeners (a *From the Roots Up* participant in 1997) hosted the ACGA winter Board of Directors meeting and a highly successful conference, "Community Gardening: Healing Hearts, Building Communities." In addition, *From the Roots Up* has yielded three new people on ACGA's Board of Directors: Chester Phyffer and Dale Levy of Oklahoma City and Felipe Camacho (who participated in *From the Roots Up* in San Antonio in 1997).



Spring Leadership Training

An exciting new aspect of *From the Roots Up* was added in 1998. The *From the Roots Up* Spring Leadership Training took place March 6-9 at the Center for Third World Organizing in Oakland, California. This training focused on community organizing and grass-roots leadership development. It included workshops on "How to Get Things Done (Without Doing Them All Yourself!)," "Atlanta Urban Gardening Leadership Training Program," "Stakeholder Analysis," "Cultivating Leadership in a Leadership Vacuum," and Diversity Training.

The theme of the workshop was encapsulated in this old Chinese verse:

Go in search of your people:

Love them;

Learn from them;

Plan with them;

Serve them;

Begin with what they have;

Build on what they know.

But of the best leaders,

When their task is accomplished,

Their work is done,

The people all remark:

"We have done it ourselves."

Here are some comments by participants in the workshop:

"The training workshop gave me the tools to let the community organize itself. Before I had wanted to do this, but the actual approach I took was really attempting to control the outcome rather than letting the community decide. In practical terms, this has changed the way in which we are organizing gardeners—putting decisions and responsibility more in their hands, trying to hold back giving what I see as the 'answer' in order to allow the community members to arrive at the answers themselves."

"At my school we are making a memorial grove for the students and staff who have died from violence this year. I am part of the project committee and I'm always trying to take charge of the whole project and I don't really listen to what others have to say. The formula we used in the community organizing workshop inspired me and I realized it was a good way of bringing people from all communities together."

PARTICIPANTS, 1996-99

Arkansas Urban Gardening Educational Resources (AUGER), Little Rock, Ark.

BC Green, Battle Creek, Michigan

Bexar County Master Gardeners, San Antonio, Texas

City Sprouts, Omaha, Neb.

Community Garden Network, Hamilton, Ontario, Canada

Community Gardens of Coachella Valley, Bermuda Dunes, Ca.

Community Gardens of Jackson, Jackson, Miss.

Delaware Center for Horticulture, Wilmington, Del.

Gainesville Community Garden Coalition, Gainesville, Fla.

LifeCycles, Victoria, B.C., Canada

Los Angeles Community Garden Council, Los Angeles, Ca.

Lubbock Green, Lubbock, Texas

Nuestras Raices, Holyoke, Mass.

Red Dirt Gardeners, Oklahoma City, Okla.

Rural Development Center, Salinas, Ca.

SouthEastern Efforts Developing Sustainable Spaces (SEEDS), Durham, N.C.

Toledo GROWS (Gardens Revitalize Our World), Toledo, Ohio



Kate Brown (left) of City Sprouts in Omaha gets advice from mentor Nancy Allen during a *From the Roots Up* site visit. In Holyoke, Mass. (right), Fernando Olivares teaches two young men how to plant cilantro in the Ciudad Verde Community Garden, a project of Nuestras Raices.

“Through *From the Roots Up*, I learned how to pay attention to ideas and agendas of ALL participants in the community garden. I’ve seen the importance of asking questions rather than making assumptions—for example, about why people want to be involved in community gardening, or what aspects of leadership might appeal to them.”

What Do Mentors Do?

Kate Brown, founder and president of City Sprouts (a 1998 *From the Roots Up* participant from Omaha, Nebraska), recently wrote about the effect of *From the Roots Up* on their community gardening efforts:

“Our mentorship with *From the Roots Up* came just at the right time. We were in the midst of trying to clarify our vision and to transition from an all-volunteer organization to one with a paid professional staff. Our FTRU mentors, Nancy Allen and Odin Zackman, helped City Sprouts to create the organizational foundations, fund-raising capacity, and linkages necessary for our sustained growth. Their insights, suggestions, and active listening skills continue to influence our development in significant ways. Just to name a few of the tangible contributions they made to City Sprouts:



A group of *From the Roots Up* participants and mentors get together in Oakland in March 1998.



- Nancy’s visit to Omaha provided the occasion for City Sprouts to host a community-wide gathering of government personnel, community professionals, and neighborhood representatives interested in fostering gardening in inner-city Omaha. We have continued to converse together about how our shared vision will be realized.

- Odin helped the City Sprouts board of directors to reach consensus about our long-term goals and next year’s objectives. With his facilitation we were able to name what it is that we are doing and specify what it is that we want to do. Previous to our meeting with Odin, we had been successful with a broad range of vaguely articulated goals, but he helped us realize the many advantage of a concise, clear set of goals for our next phase of development.

- Both Odin and Nancy have been invaluable resources to City Sprouts’ fund-raising efforts. For one thing, they urged us to ask people for money. ‘If you ask for money, people will give it to you.’ So we did our first annual fund-raising letter and received \$10,000 in return! Wow, it works. That was about one-half of last year’s budget.

- Nancy and Odin helped us prepare for hiring part-time professional staff. They underscored our need for such ongoing support and they helped us to think through job descriptions and the organizational changes we would need to ensure the effectiveness of these new positions.

- The list of the contributions *From the Roots Up* has made to City Sprouts would be incomplete without mentioning the connections we have made with other groups around the country who have been of inestimable assistance to us.”

Standing Our Ground: New York City's Embattled Community Gardens Win Reprieve

REPORT

At 5:30 p.m. on May 12, less than 24 hours before an auction was to be held to sell the properties to the highest bidder, Trust for Public Land (TPL) signed an agreement with New York City: TPL will take title to 63 of the gardens that had been slated for auction, for a price of \$3 million. The city reached a separate agreement with the New York Restoration Project, chaired by Bette Midler, for the purchase of the 52 additional sites that had been slated for auction for \$1.2 million. All 115 gardens will be used in perpetuity for open-space purposes managed by community residents.

The mayor originally rejected an offer from TPL to purchase some of the gardens on the auction and several others for \$2 million. Philanthropists and foundations were exploring the possibility of purchasing the gardens at auction.

The change in the mayor's position happened hours after a New York State Supreme Court judge issued a temporary restraining order to stop the auction in response to a lawsuit filed by the New York State Attorney General's office, the Green Guerillas, the Municipal Arts Society and the Natural Resources Defense Council. New York City Environmental Justice Alliance and the Puerto Rican Legal Defense Fund also filed a federal lawsuit. Both lawsuits are still pending.

The potential loss of 115 community gardens at auction brings to the forefront the issue of garden preservation that was the theme of the 1998 *Community Greening Review*. As Suzanne Monroe-Santos found in her survey of community gardens, only 5.3 percent of community gardens nationally have some kind of permanent status. This figure holds true in New York City. That gardens are considered temporary by most municipalities leaves them vulnerable to development pressures and political whims.

Over the past year a number of NYC community gardens have been taken for particular housing development projects. Most recently, the Garden of Love, a school garden in Harlem received a lot of press because it was bulldozed without warning even though an alternative site was offered.

There are approximately 11,000 vacant lots in NYC and 1300 vacant buildings. About 700 community gardens are on city-owned land at present.

Two examples of gardens that were on the auction are Plant a Lot-assisted gardens: All Peoples Garden established in 1979 and Parque de Tranquilidad established in 1980. Both of these gardens had long-term leases expire in 1994 and both had been approved by CB#3 in Manhattan for transfer to the Parks Department.

All of the gardens slated for the May auction have gone through the Uniform Land Use Review Process (ULURP) sometime in the last 20 years. Neighborhoods change over time and most of the

circumstances that existed at the time of ULURP have changed but there is no expiration date for the ULURP.

The City Council parks committee passed Resolution 631 on April 19 which asks the Legislature of the State of New York to amend the New York City charter regarding the disposition of properties that are part of the GreenThumb program to permit the City Council to review ULURP decisions made by the now-defunct Board of Estimate. Other City Council legislation is pending.

On the state level, two bills have been introduced. One would designate community gardens as NYC parkland, and the second would make gardens eligible for Clean Water/Clean Air Bond Act funds to purchase or improve gardens.

A national conference and rally titled Standing Our Ground was held April 9-10. ACGA was a co-sponsor, and members from Boston, Philadelphia, Madison, Atlanta and Virginia took part in these events. The rally and conference focused national attention on the need for urban green spaces and the possible destruction of 115 NYC community gardens.

Numerous petitions have been circulated, locally, nationally and through the Internet. A great deal of press has been generated in local, citywide newspapers, radio and TV.

The other gardens that aren't on the auction list are still threatened by potential development or sale. For the last year and a half no new gardens have been approved to begin gardening. The gardeners and technical assistance groups are asking for a garden-by-garden review before any potential development, a mechanism for creation of land trusts, transfer of gardens to the Parks Department, and a mechanism for leases for new gardens to be established.

This crisis points out the need for community gardeners to organize in their communities to gain popular and political support for the preservation of gardens. Planning and policy making are more important than ever. Nationally there are some forward-thinking cities that community gardeners can emulate in this process.

Community gardens are included in open space plans in Seattle, Berkeley and Arlington County, Virginia. Zoning designation for community gardens exists in Boston and Austin. A good example of policy was the creation of NeighborSpace by the city of Chicago. Funded by municipal funds, NeighborSpace can also raise funds privately to purchase and permanently protect open space including community gardens.

This is an important era for community gardening. Community gardeners and garden supporters have to be ready to work with their city councils, community planning boards and mayor's offices to do community-based planning and policy making that includes community gardens as an important component of permanent neighborhood open space.

A Report

*on the Status
of the
New York City
Community
Gardens in
May 1999
and
ACGA's
Support*

**BY LENNY LIBRIZZI
FORMER ACGA
BOARD MEMBER**



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MULTILOGUE NEWSLETTER & PUBLICATIONS

Every other month you will receive ACGA's newsletter, the *Multilogue*, containing job notices, organizational information, member news, notices of conferences and events, resource referrals and requests, and other timely information. Other publications are available by request, including back issues of the *Review*, our *Start-Up Packet*, monographs, and educational handouts on a variety of topics. Every ACGA member will also receive a copy of our most recent *ACGA Membership Directory* and *Annual Report*.

DISCOUNTED REGISTRATION AT THE ANNUAL CONFERENCE

Meet with other community gardening and open space advocates, volunteers and professional staff, and share information, experiences and fun through workshops, seminars, special interest group sessions, tours and informal discussions. The 1999 Conference is scheduled for Sept. 30–Oct. 3 in Philadelphia, Pennsylvania.

NETWORKING & MENTORING

Gain access to an informal network providing a wide variety of contacts throughout North America and the world! Mentors are available to identify potential resources and address specific technical matters.

COMMUNITY GARDENING SLIDE SHOW AND VIDEO

The 125-slide show highlights people and programs from across the country, accompanied by a printed script (and is also available to non-members for a fee). ACGA's video *Growing Community From the Roots Up* is also available.

FROM THE ROOTS UP TRAINING PROGRAM

ACGA members are eligible to apply to *From the Roots Up*, ACGA's initiative to lend intensive technical assistance to five emerging citywide greening organizations per year. Those organizations selected to participate will receive a variety of services from ACGA and its professional mentors, ranging from on-site visits and phone consultations to participation in special *From the Roots Up* training workshops.

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*Note: Individual memberships are intended for those without organizational affiliation or who are with a member organization and wish to further support ACGA. Memberships are renewable September 1 each year.

HOW

Mail to: ACGA, c/o The Pennsylvania Horticultural Society, 100 N. 20th Street, 5th Floor, Philadelphia, PA 19103-1495 or call us with your name and address at (215) 988-8785 and we will send you a membership packet. Web site: <http://communitygarden.org>



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