



The Organic School Garden

Hands-on teaching of environmental health and social values

By Meghan Taylor

At Beyond Pesticides' 22nd National Pesticide Forum, held in April 2004, forum participants had the opportunity to visit several of Berkeley, California's organic school gardens. Beebo Turman, project director at Berkeley Community Garden Collaborative (BCGC), led the tour. The following is a portrayal of the school gardens that were toured, The Edible Schoolyard and the Willard Greening Project, with lessons on how you can start an organic garden at your community's school. This article is dedicated to Karl Linn, an inspiration to the Berkeley and national community gardening movements, who died on February 3, 2005.

The Edible Schoolyard: A model for the country

Overlooking the San Francisco Bay and Golden Gate bridge, a one-acre organic garden rests on the campus of Martin Luther King Jr. Middle School in Berkeley, CA. The soil is bursting with fresh produce, herbs, vines, berries and flowers, all surrounded by fruit trees. On a shed hangs scores of blue, green and red gloves. Shovels, hoes and handmade signs marking tomatoes and other vegetables sit waiting for the students to make use of them in their outdoor classroom. In the center of the garden sits the circular Ramada, which means shade structure in Spanish, covered with deciduous vines and climbing annuals including kiwi, runner beans, and chayote. A compost area, chicken coop, wood fired oven, and picnic tables all add to the vitality and richness of the *Edible Schoolyard*.

Ten years ago, this haven for vegetables, wildlife and students was an asphalt parking lot. In 1995, Alice Waters, chef,

author and owner of the famous Chez Panisse restaurant in San Francisco, had an idea to create a school garden. Her idea was transformed into reality through outreach with landscape architects, chefs, gardeners, teachers, and other design professionals. Now, in 2005 the garden provides an invaluable resource for students, staff and the entire community.

Seed to table

The *Edible Schoolyard* teaches students the fundamental lesson of "seed to table." This lesson creates a bond between students and the natural world. Students learn every aspect of how their food is created. They start with seeds and work in the soil, composting, caring for plants, learning to respect ecosystems, and learning the dangers of chemicals and pesticides. The children learn an important lesson: to tolerate certain insects, worms and other beneficial organisms, and to keep the garden healthy from detrimental insects.

"Seeds" are transformed into lessons of the "table" through cooking classes incorporated with student electives and humanities curriculum. Students learn origins of staple ingredients, grinding wheat into flour and making their own butter. They learn about a diversity of plants and foods, growing food from other cultures and cooking international cuisine. They prepare menus, cook and taste, set tables and bring in fresh flowers from the garden. They share in food, conversation and cleanup. The lesson comes full circle when the students compost food scraps from their meal to help their own garden grow more healthfully.

Foods are grown year-round, and the summer time is no exception. *Edible Schoolyard* provides a valuable model, as it

is the only school garden with a summer program. Students garden, weed, and harvest for two hours in the morning, and prepare their lunch from their work, eating on the garden's picnic tables.

Funding the garden

Edible Schoolyard began through the support of two private foundations: Chez Panisse Foundation and the Center for Ecoliteracy. Currently, it is supported by a number of foundations, individual gifts and benefit events. When staff is inspired with new ideas such as a pizza oven or a tool shed, they write grant proposals to make it happen.

In addition, this particular school garden is a high publicity spot. Both Fred Rodgers and Martha Stewart have filmed there in the past, which helps with the fundraising. Beebo Turman pointed out that there are other monies available for school gardens, high publicity or not. See *Lessons Learned* later in this article for tips on how to fund a school garden.

Community outreach and education

Edible Schoolyard conducts community activities that raise both awareness and funds. They once had a fundraiser in the school gym, food included, and showed an environmental film. As a result, \$13,000 was raised for the garden. "It was for the *Edible Schoolyard* but also to inform the neighbors and others in the area about what's happening, that this is not the only school doing this, and to help the community support school gardens," said Ms. Turman.

Other areas of the community are also involved with the *Edible Schoolyard*. Staff at the Berkeley Horticulture Nursery have been regulars at the *Edible Schoolyard's* garden committee meetings for the past ten years. The Nursery donates plants, as well as time. One employee visits the garden once a week for two hours to work with the students.

Another active community member, Karl Linn, a landscape architect, psychologist, retired University of California Berkeley professor and national community garden advocate, helped found the EcoHouse Project. The EcoHouse, located directly adjacent to the Karl Linn community garden, is a solar power demonstration house that teaches children about renewable energy and resources. It is made of recycled wood and has a

permaculture garden in the back. Ms. Turman said of Karl Linn, "He believes in community gardens to bring the people together to meet each other. There's a whole feeling of working together that is something that you just can't replace anywhere else."

The Willard Greening Project: Facing challenges head on

The *Willard Greening Project* at the Berkeley Unified School District (BUSD) was begun by PTA member Yolanda Huang, and has provided immeasurable benefits to the school and surrounding community. Unfortunately, in June 2004, Ameri-corps, a principal sponsor of *Willard Greening*, pulled its funding due to what many *Willard Greening* advocates say is the faulty accounting methods of BUSD. Since then, the garden has been struggling. Ms. Huang and others in the community

are putting up a fight for its survival. During the Beyond Pesticides tour in April 2004, the participants witnessed the garden's beauty and invaluable benefits that they are trying so hard to maintain today.



Students collect eggs from their chickens at the *Edible Schoolyard*.

What the garden gives

Before *Willard Greening*, the soil on the school property was abysmal, unable to support any life. The project began by ripping up the concrete and filling the space with soil. City compost was applied to begin to bring back the health of the land. Since then, the soil has been cover cropped and sifted to promote its health. As the land was repaired and beautified with a plethora of plants and crops, a community came together. Students were excited. So were residents. The change

that occurred was immense.

Students learned about composting, rotating crops, proper watering and irrigation, how cover crops work, and other principles that exemplify and instill the fact that chemicals are not necessary to grow healthy food. *Willard Greening* head gardener Matt Tseng pointed out the garden's healthful bounty of peas, potatoes, strawberries, carrots, tomatoes, peppers, artichokes and fava beans among a multitude of other crops.

Overall, the *Willard Greening Project* incorporates a nutrition class, a gardening club, lunches and beautification projects in addition to helping students learn how to grow and cook food and care for land organically. It is a community-wide treasure.



These seedlings will eventually produce food for lunch at Martin Luther King Jr. Middle School.

Transforming the food culture

Willard Greening's nutrition class has been monumental in student's understanding of food in culture. Mr. Tseng says that the first lesson students learn is the benefits to eating "whole foods," as opposed to processed foods. The students learn to read labels and decipher a healthful food choice from an unhealthy one. At the same time, Berkeley Unified School District does not have soda and candy machines and is making a concerted effort to provide healthier food. Great change has occurred. "We've seen that the kids are more open in that they try things they never would have tried. The question is whether they make the change in their daily lives. That's a lot harder because we're up against how all of society eats, and the fast food lifestyle. Many kids here are not sitting down to eat a meal [at home], either because both parents are working or just different family situations. On a smaller scale, we've been successful in getting kids to realize that something that is green and goes on your noodles isn't nasty. It's pesto and it's delicious," said Mr. Tseng.

Willard Greening has been a doorway for students to live healthier lives. The challenge of confronting the societal value of convenience and the promotion of processed and fast food is a daunting one. However, teaching young, developing minds about healthy alternatives hands-on, and letting them actually *feel* the difference, is a vital step toward a deeper cultural understanding of the importance of whole, healthful foods that do not depend on chemicals in their production and processing.

Lessons learned: Tips for starting a school garden in your community

Through the words and actions of Mr. Tseng and Beebo Turman, and other garden staff of the Berkeley Community Garden Collaborative, much can be learned about how to start an organic school garden, and how to thoughtfully incorporate the garden into student life. Following are some tips to assist

A school garden is a great project that can appeal to an eclectic mix of the community, including local environmental groups, organic advocates (find some at your local organic store), gardening clubs, cooking clubs, and the Parent Teacher Association (PTA) or Parent Teacher Organization (PTO).

you in this rewarding endeavor. A great resource of this information, and something to look at in detail when planning a school garden, is the *Edible Schoolyard* website at www.edibleschoolyard.org.

Getting started

- Reach out to the public for support. A school garden is a great project that can appeal to an eclectic mix of the community, including local environmental groups, organic advocates (find some at your local organic store), gardening clubs, cooking clubs, and the Parent Teacher Association (PTA) or Parent Teacher Organization (PTO).
- School garden advocates should hold a meeting with school administrators and landscape architects, chefs, and designers to help, as Alice Waters did at Martin Luther King Jr. Middle School.
- Custodial staff may have concerns about the garden and kitchen proposal, such as attracting pests and maintenance problems. Be understanding of their concerns and work together to create a solution.

Creating the garden

- Create a space where the class will meet at the beginning and end of each gardening session. For example, *Edible Schoolyard* fashioned a shade structure and hay bale seats.
- Make the garden organic and naturally sustainable. Consider your locale's native flora, fauna and grass species, as well as the climate in deciding which plants to grow throughout the year.
- Leave room in the soil for flowers, as these will add a sense of beauty to the entire space.
- Treat the land as a whole garden for the entire school, instead of dividing it up into sections for each class.

Working with students

- Begin classes with a greeting ritual.
- Adult supervision is very important. Set boundaries so that students will know where they are allowed to go.
- Engage students in hands-on applications for a memorable learning experience—not just pencil and paper exercises.
- Construct lessons so that students can work together in small groups.
- Trust the students in designing and planting.
- Highlight a multi-cultural approach in raising foods and planning menus. Focusing on new, international experiences is a great learning technique that can complement other classes students are taking.
- Incorporate a time for reflection of activities so that students can learn from mistakes and try new methods.
- Incorporate a cooking element to the curriculum so that students can cook the food they grow. Introduce each class session with ingredients and methods, and encourage tasting throughout.
- Have students set a table, with plates and utensils and perhaps a floral centerpiece from the garden. After the meal, engage students in designated cleanup jobs.
- Define set times for cleanup.

Teacher collaboration

- There should be both full-time garden and kitchen teachers.
- Teachers and the garden and kitchen staff should meet regularly to discuss curriculum development. Lessons taught in the classroom can complement the experiences that students have in the kitchen and garden, making the entire learning process integrated.
- Use blocks of time of 90 minutes or longer for the most successful and intensive garden and kitchen experiences.

Community outreach and fundraising

- Heightening community awareness of the benefits the school garden to the entire community is a great way to raise funds.
- Hold community-wide events in the garden: show a film, have a bake sale.
- During events, hand out fliers or pamphlets on the benefits of the garden to the entire community. Students can help create the materials with research and artwork.

- Community awareness cultivates support from people, organizations and local businesses that would like to become involved, donate supplies or funds, or volunteer their time.
- While individual assistance and donations are vital, it is important to acquire grants that will bring your garden to life and sustain it.
- There are local, state and national grants available. Seek out those that concentrate on environmental programs, science education, gardens and habitats.
- *Edible Schoolyard* and the *Willard Greening Project* both receive funding from the California Nutrition Network, a state agency that acts to enable low-income residents of the state to “adopt healthy eating and physical activity patterns as part of a healthy lifestyle.” The Network’s funding is principally from contributions from state and local governments that qualify for Federal Financial Participation dollars from the U. S. Department of Agriculture’s Food Stamp Program. Check out similar programs in your state.
- Resources for grants on the web:
 - Schoolgrants.org is a great web resource for tips on grant writing for school projects like gardens, and includes sample proposals and listings of foundations and opportunities. They also publish a bi-weekly newsletter listing grant opportunities.
 - The North American Association for Environmental Education also provides a comprehensive listing of grant opportunities. Check their site out at <http://eelink.net/grants-eespecificresources.html>.
 - Kids Gardening has a searchable database of grants by region on their website at: <http://www.kidsgardening.com/resources/resource.asp>.



The wood fired pizza oven makes the Edible Schoolyard a great place for student picnics.