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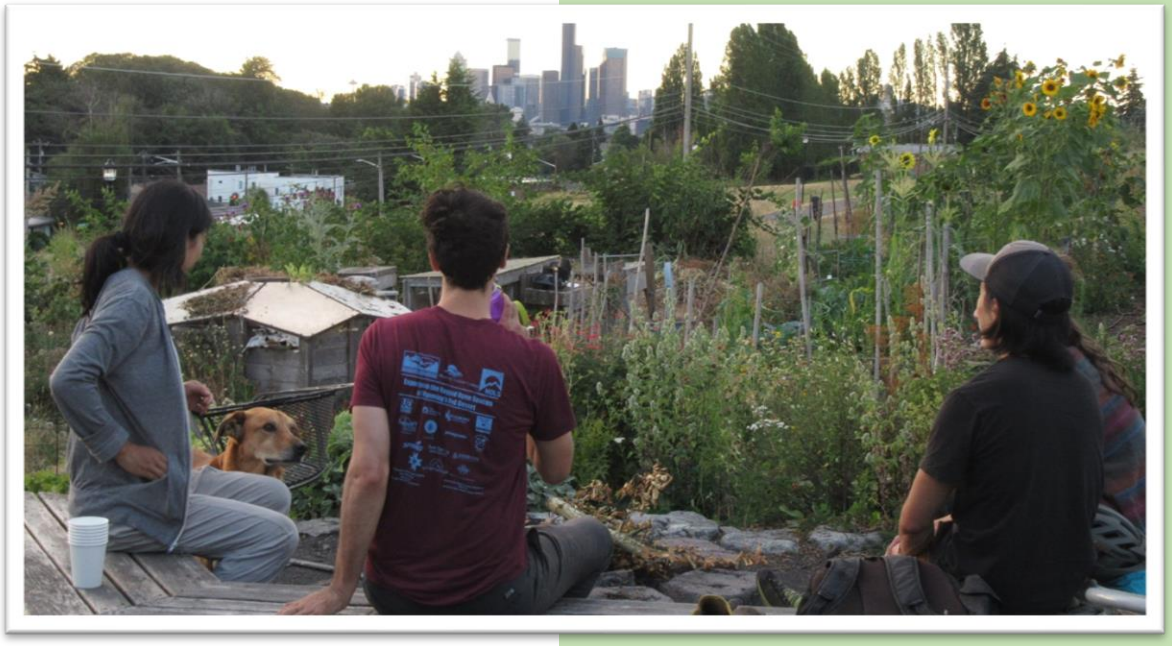
Community Food Futures in Australia



2020 Churchill Fellowship

To investigate the Potential of Community Food Forests and Orchards

Case Study Report by

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Food Forests for Schools, Miami USA

Program webpage 14 – 21 August, 2022

Introduction

The Food Forests for Schools program is the brainchild of Eddie Recinos and Debi Labelle from The Education Fund. The fund's website (accessed December 2022) states that the

> '… initiative is at the cutting-edge of nutrition and environmental sustainability education. In 2012, The Education Fund made history by installing the first Food Forest in a public elementary school in the nation. Today, 28 of our 51 elementary school gardens are perennial, edible landscapes, each occupying an impressive 3,500-10,000 square feet [325 to 926 m^2] of school grounds'.

Sign at Twin Lakes Elementary school. August 2022

The program evolved out of a school 'box garden' (raised garden beds) scheme where annual vegetables and herbs were been grown. Over the long summer school breaks the gardens would not be tended and weeds would take over. Teachers were finding upon their return to school that they would have to spend precious little spare time preparing the gardens to get them 'vegetable seedling ready'. School principals complained that the gardens look messy.

With Debbie La Belle and Eddie Recinos. August 2022

Debi and Eddie could see an opportunity and both were looking for a career change. Eddie was an art teacher at Twin Lakes Elementary school in Miami and he had been investigating permaculture and food forest concepts as a way of feeding his family. Debi was a professional chef with teaching experience and needed a more stable job to better raise her young child.

Eddie decided to covert a small part of a grassed area at his school into food forest. Using the action principle of ‘act first, ask for forgiveness (if necessary) later!’ he went ahead and installed the garden. The president of The Education Fund saw the garden during a tour of the school and was so impressed that she decided that every school in the district needed to have food forests.

Benefits

According to the program’s webpage ‘The ultimate objective of Food Forests for Schools is to significantly improve eating patterns in children and their families while also improving students' academic achievement’. The children are learning about nutrition, taking home food to their families and eating school cafeteria meals prepared with food that they harvest from the food forest. They are also learning maths, science and other subjects in the food forest environments.

Food justice and sovereignty

Many of the schools are in poorer neighbourhoods with large diaspora populations from the Caribbean, Cuba and Central America. Debi explained to me that there is a lack of knowledge and access to important cultural foods apart from the popular stuff that's in the in the Cuban and Latino shops. So, one of the winning positive aspects of the Food Forest for Schools Program is that the gardens to grow culturally important foods for the children and their families that might not necessarily be available in the shop. For example, the food forests grow some of the herbaceous plants where traditional teas and medicinal products are sourced, and other important flavours that go into Caribbean and Cuban cuisine.

I think the food forest program team have been very quick to realize that those food plants are of importance to the school communities that they operate in and are not necessarily available anywhere else apart from the school food forests.

Multigenerational connection

One of the unexpected and fascinating outcomes is that some of the first and second generation immigrant children and their grandparents have bonded more closely. This is because the children are bringing home some of the traditional foods that the grandparents can still remember from ‘back home’. Debi reported that the children’s parents are often unfamiliar with these foods. So, a lovely bond develops when mama and/or pop show their grandchildren the old food traditions.

Wildlife habitat and learning

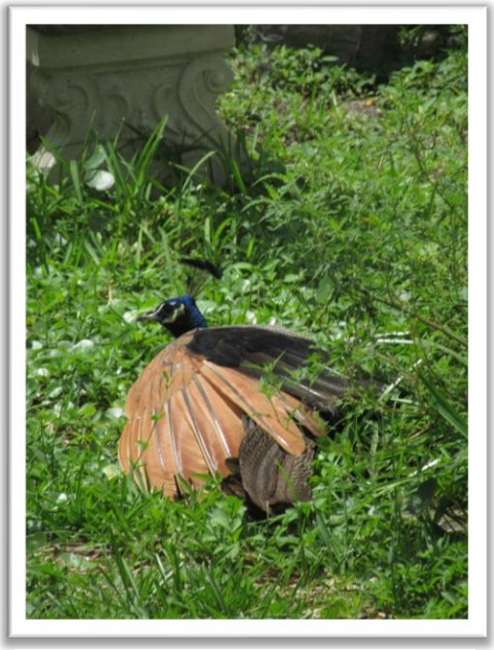
Another aspect of the food forests program is that it's created habitat for local wildlife. In the three gardens I visited I saw butterflies, chickens, and a peacock, other birds and lizards. These places offer sanctuary to wildlife, but at the same time, offer potential for learning in the school about fauna and the relationships between animals and plants within an ecosystem. Those relationships might not be apparent anywhere else for the school children simply because accessible urban wildlife habitats – either remnants or reconstructions – appear to be uncommon in Miami.

> *Another welcoming place, a stark contrast to the mown open grass between the school buildings next door... A peacock roams through the place. Small creatures – butterflies, lizards, larvae are seen. This place feels dynamic, alive... Despite the heat I feel rested and at ease in this place.*
>
> - Journal entry 15.8.22
> Twin Lakes Elementary School

Challenges

Eddie and Debi listed their challenges as:

1. Administrators not understanding the food forest aesthetic
2. Training the school's ground staff in appropriate maintenance
3. Mainstreaming unusual plants



Peacock at Twin Lakes Elementary school. Aug 2022

Context

Miami is a fast paced, modern American city characterized by urban sprawl and big roads where people are reliant on cars to get around. The public transport system is inadequate (for example, there is only one train line). There's clearly a noticeable disparity between the well off and the not so well off. Miami appears to be an expensive place to live well with high costs and low wages.

Public greenspace appears limited, particularly shady parks within walking distance of most people. Parks and Miami's famed beaches are mostly accessible by cars only (the beaches are located on islands connected by causeways to the mainland). As in Australian cities, it appears that most adults don't have enough time, skills or interest in growing food gardens. There also appears to be a very limited number of community gardens in accessible public spaces.

Governance

The Food Forests for Schools (FFFS) program is managed by staff at The Education Fund (EF), a not for profit group within the Miami-Dade Public Schools system. EF is led by a CEO who reports to a board of directors. Their core business is to develop programs that support children.

Fundraising

The FFFS program sources funds from multiple funders and Debi indicated that Eddie and herself spend some of their time promoting the program to existing and potentially new funders. As of 2022 funders included:

1. Philanthropic foundations
2. TD bank (a top 10 North American bank)
3. US Department of Agriculture (USDA)
4. US Environmental Protection Agency (EPA)
5. US Forest Service
6. Florida state funding bodies.

University Partnership

The FFFS program has partnered with the International Centre for Tropical Botany at Florida International University. Led by Assistant Research Professor, Cara Rockwell, the team undertakes applied research in the schools' food forest sites. The partnership has resulted in funding from federal agencies such as the USDA and EPA due to the data and publications produced. Topics include nutritional aspects and ecosystem services.

Operations

Staff

The program employs up to 15 staff, all part time with the exception of Eddie and Debi. On-ground staff choose how many hours they want to work per week and then they are matched to as many schools as possible.

The staff include:

1. Program managers (Debi and Eddie)
2. Field manager (a contractor, who also supplies plants to the program)
3. Gardeners (contractors)
4. Admin support staff
5. Graphic designers (when required)
6. Curriculum specialists (when required)

All contractors are asked to commit to at least one year so that the children have continuity when the team visit their schools.

Stakeholder engagement

I learnt from Debi and Eddie that they pay particular attention in ensuring that the program works for key stakeholders including teachers, principals, parents and ground staff. They explained to me that discovering the teachers' concerns and needs was pivotal to the success of the program. This was especially important in developing the teaching materials and activities, including ensuring that the activities could be incorporated into pacing guides. Hal Skop, a senior teacher at WJ Bryan Elementary, said that support from the school principal and administrative staff was very important.

Educational activities

The program has developed District approved maths and science curriculums tailored to the food forests and other outdoor environments. Eddie explained that children could not attend school in 2020/21 due to the COVID19 pandemic so they developed a series of learning tools that the children could use outdoors (during their limited allowable recreation times). These tools have now been approved as set curriculum by the schools' district board and the teachers use them in the food forest environment.

Talking with students at Lake Stevens Elementary school. August 2022

Hal gave me examples of the learning activities in science (including position of the sun, observational properties, water levels, soils, erosion and weathering) and maths (collecting and categorising sticks, and modelling a maths problem with sticks). A typical session in the food forest will involve 20 kids in groups of four or five. Student results have improved by as much as 70% directly due to this outdoor learning approach.

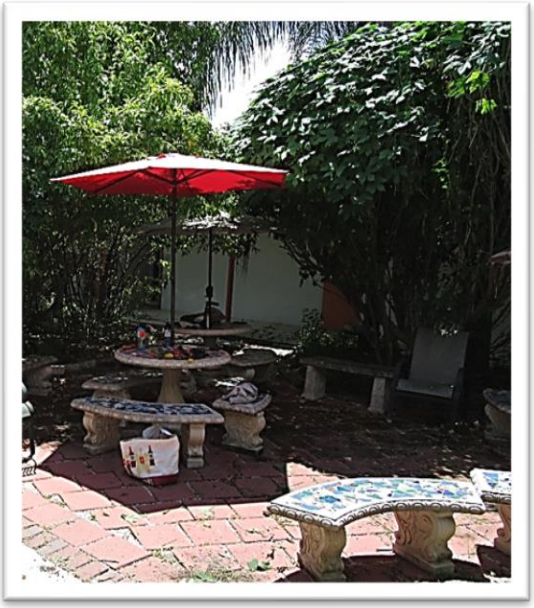
Some schools also have an after-hours garden club, driven by a passionate teacher, where the kids can do informal learning in the food forests. Hal leads a garden club at WJ Brian Elementary twice a week.

Maintenance

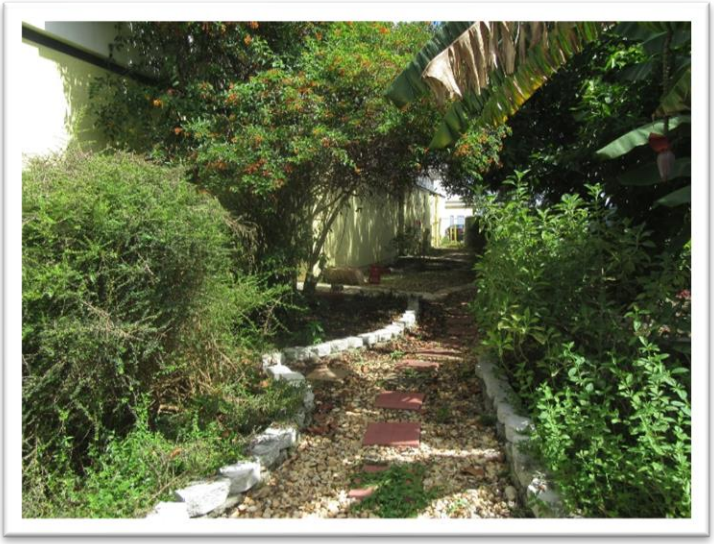
The program's on-ground staff support the teachers with timely maintenance of the gardens. This includes weeding and mulching the gardens just before the beginning of term. This practice ensures that the gardens look presentable and welcoming, not just to the children and teachers, but also to the school principal and other administrators.

Design features

Click here for a tour of Twin Lakes Elementary school's food forest. Each food forest is uniquely designed to fit with the school layout and needs of the users.



Outdoor classroom, Twin Lakes Elementary school. Aug 2022



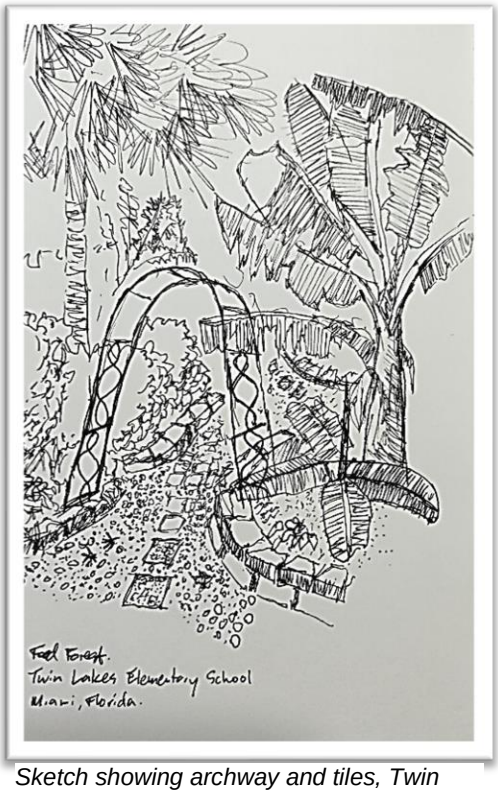
Gravel paths with pavers, Lake Stevens Elementary school. August 2022

Outdoor class rooms

Every garden has an outdoor area where children and teachers can gather for learning activities. In the gardens I visited these were all simple arrangements of tables and chairs in the shade. At two of the gardens the furniture looked interesting, either using mosaics or repurposed timber pallets.

Drainage solutions

To deal with the huge amounts of rain during tropical storms 100mm deep gravel is installed between the beds with unit paver ‘steppers’ on top.



Sketch showing archway and tiles, Twin Lakes Elementary school. Aug 2022

Visual ‘permission’ with garden devices

In the three gardens I visited simple archways have been installed at the entrances to different spaces. Also, mosaic tiles (made by the children as a school activity) are placed on paths. Debi explained that these garden devices are important visual ‘cues’ that give the children ‘permission’ to enter the gardens without having to ask first. I also noticed small garden ornaments such as Buddha statues and bright signs that are also welcoming.

Banana groves and circles

All of the gardens employ banana circles that not only provide a high yielding food source but also host class room activities. For example, Debi explained that the children learn about composting here.

Notable plants

Edible plants from the region and Caribbean, Cuban and central and south American cultures abound in these gardens. A foundational plant list is used in developing plans. As I live in a similar climate to Miami, I recognised many of the plants (such as Pinto’s peanut, Cuban oregano, and Moringa). However, the following plants were unfamiliar to me:

Banana grove, Lake Stevens Elementary school. August 2022

- Chaya (Cnidoscolus aconitifolius)
- Costa Rican mint (Satureja viminea)
- June plum (Spondias dulcis)
- Seminole Pumpkin (a variety of Cucurbita moschata)
- Tahitian spinach (Xanthosoma brasiliense), used to make the Caribbean dish Callaloo.