

## School gardens

### 'The garden echoes what happens in the classroom'

by Lisa Marie Dahm  
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With hands deep in the soil, students at Kona Pacific Public Charter School in Kealahou spend time twice a week in their 6,000-square-foot garden. Their garden teacher, Barrow Hutchison, is right there with them, teaching them everything from planting and harvesting to building a shed. They even learned how to build an electric fence to keep pigs out.

It might seem like innocent fun, but beyond learning to grow and even eat eggplant and squash, the students are applying what they've learned in math, science, reading and social studies in a hands-on way.

"The garden echoes what happens in the classroom," Hutchison said.

A school garden can be considered the ultimate educational tool to teachers, parents and students. While out in the sunshine, students are learning practical life skills like teamwork, perseverance and personal responsibility mixed in with physical education and an understanding of nutrition.

Usha Kotner, director of Kona Pacific Public Charter School, said that school gardens "help inspire reverence for the land" and "provide opportunities for the children to experience wonder in nature."

"Once they have made that connection with the land, the children are conscious of their impact in the way they live," she said.

Hawaii Island schools are able to connect with each other, share tips, organize, develop curriculum and find funding through the Kohala Center's Big Island Garden Network. Started in 2007 under the guidance of program coordinator Nancy Redfeather, it gives schools a place to bring the dream of a school garden into existence. She said the Kohala Center was created to develop energy and food self-sustainability through education and research.

Redfeather said that when the network started, there were 20 schools with gardens. Now 55 of the 75 schools on the island have school gardens and agricultural programs. There is also a statewide network.



"None knew the other existed," Redfeather said. "We have brought them all together."

With the rise in childhood obesity and diabetes, Redfeather said that her hope is students will learn how to grow and prepare healthful foods for themselves. That will teach them to "take charge of their health."

"This program could do more to change the world than anything else," she said. "The children would lead the way."

Danny Garcia, principal of Kohala Elementary School, started a garden at his school within the past year. With funding and technical help from the Kohala Center, he was able to hire Ming Wei Koh as a full-time garden teacher.

"The Hawaii Island School Garden Network has the big picture of



Barrow Hutchison, garden teacher at Kona Pacific Public Charter School in Kealahou, instructs students in the school garden Nov. 3. - Lisa Marie Dahm | Special To West Hawaii Today

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Paula Rincon, left, and Jaylynn Vallente check the progress of seedlings that have been started in test tubes. - Anna Pacheco | Special To West Hawaii Today

educating students in health and nutrition through hands on learning," Garcia said.

"When you talk about test scores and raising student achievements, school gardens are a natural venue for young minds to grow," Garcia said. "It is all there in the research."

Krista Donaldson, garden teacher and sustainability coordinator at Innovations Public Charter School in Kailua-Kona since its start four years ago, said she learned a lot from Amanda Rieux, program director and garden teacher for Malaai culinary garden, a 5-year-old model school garden at Waimea Middle School in Waimea.

"School gardens are a perfect hands-on learning opportunity to increase our children's ecoliteracy -- their understanding of nature's cycles," Donaldson said.

Donaldson said her students learn to use tools and to prepare the food they eat.

"Parents ask me, 'Why is my kid eating salad all of a sudden?'" Donaldson said. "That is a great benefit; children will eat what they grow."

Manuel Jadulang, Honokaa High School agriculture teacher, has the Herculean task of keeping teens interested and engaged while developing a comprehensive agriculture program. The program includes agriculture technology, hydroponics, aquaculture, plant tissue culturing, growing native plants and vegetable crops.

Students also work in the agriculture shop to maintain small farming equipment and help with woodworking projects.

"As a teacher, I have to develop a program to entice kids to take it as an elective," Jadulang said. "That is the challenging part. ... If your program is good enough, they will come."

Jadulang said that several of his students enjoy the program so much that it "sways" them to enter agricultural or forestry programs after high school. He said he has also watched students who were once difficult have a change in attitude as the program progresses.

"They do all of it," he said of the work by his students.

"I try to teach them life skills and a work ethic," he said. "(How to) Be on time, be respectful and to cooperate."

Both Jadulang and Garcia say school agriculture today combines traditional work with new, exciting technological advances.

"They are the laptops down there tracking rain and wind and the acidity of soil," Jadulang said. "It combines tradition with 21st century skills." Garcia said he hopes that by giving students "life lessons in the garden" it will not only build character and raise test scores, but also inspire them to create their own gardens at home.

His other hope, though now blocked by regulations, would lead the school one step closer to self-sustainability.

"My dream is to have a school garden that puts food on the plate in the cafeteria," he said. "That would be a dream that would be appropriate. It would be a good step in the right direction."