



Created in partnership with:

Blue Zones Project Hawaii. University of Hawai'i Student Ambassadors, and the Kapolei-Ewa Community.

Featured Gardens:

Schools

'Ilima Intermediate School Island Pacific Academy University of Hawai'i - West O'ahu

Community

'Iwalani Tseu

Pu'uokapolei Keahumoa Place West Loch Village Onelau'ena Residential. Senator Mike Gabbard Erika Brown

Gardens in Kapolei and 'Ewa



At Blue Zones Project - Kapolei & 'Ewa we are working with the community to create a happier, healthier place to live, work, learn and play. Community gardens have long been a recognized strategy to address food access, encourage cross cultural bonds, and support health. While working alongside multiple partners to restore and support community gardens, the following benefits have been recognized through direct experience:

- Gardens make healthy foods readily available
- Gardens improve individual and community health
- Gardens encourage garden-to-table
- Gardens enhance community
- Gardens increase natural movement

When people garden, long-term effects are carried through. Gardening reduces the carbon footprint, boosts economy, provides mental & physical health benefits, strengthens social networks, provides stress relief, prevents crime, provides ecological benefits, and encourages education. While working with the community, it has been observed that people enjoy taking pride in gardening. It is a purposeful outlet where individuals have a sense of place. Friendly social networks occur naturally and people find ways to connect around a garden. Elders teach children to garden and pass along knowledge and skills they learned. It creates diversity, equity, and multi-generational communication. When community gardens are built, restored, or installed, it has been successful in encouraging people to find ways for it to thrive. Residents who care for the garden become resourceful, connecting with others to enhance the garden and create abundance for what it needs to succeed. Education around gardening styles is sought so that people can plant according to environment, culture, and plant what thrives. Enjoy this booklet that features some of the many gardens in Kapolei & 'Ewa. We hope you will be inspired to grow!

Find more garden info at hawaii.bluezonesproject.com







School Gardens

From Blue Zones Project® Hawaii



Brought to Hawaii by HMSA



'Ilima Intermediate School

Reviving the Greenhouse



How it started:

"Upon starting at 'Ilima Intermediate School in 2017, there was an existing greenhouse built from a Monsanto Grant. It is a 50 ft square house with chicken wire, sun fabric all around it, and was built ten years ago. Prior to its restoration, there were in-ground garden beds with waist high shelves/work tables that used to house aquaponic material. It was skin and bones. To restore the greenhouse, we first received soil donations from Hawaiian Earth Products. UH and 4H donated kalo, and now it is as tall as I am! If we don't advocate for school gardens and teaching about it, then the kids will grow up not knowing about it."

Benefits:

"Gardening at 'Ilima has helped me to realize that hands-on experiences are the real foundation of what education truly is, and place-based learning activities based around sustainability are possible when students have access to a garden. This knowledge has helped me realize my calling, and hope for a better future that we know is possible. If kids are out of touch with the land, then they are out of touch with life."

Garden Care:

"The garden is weeded occasionally and the kalo is watered every day. We try to encourage the kids to care for the greenhouse as if it is their own."

What's Growing:

- 2 3x6 beds of kalo
- Banana
- Sugar Cane
- Kukui Nut
- Ti Leaf
- Red Ginger
- Beans

Future:

"We hope to build more experiences and use more opportunities such as gardens, greenhouses, aquaponic systems, and everything that's handson, project-based, inquiry driven, and relative to sustainability. We hope to make the greenhouse accessible to students & community, to propagate the plants, and share with surrounding areas."

-Taylor Phelps, STEAM Teacher







'Ilima Intermediate School Greenhouse





Mr. Phelps and students restore the Greenhouse



Kalo and other plants thriving



Front door to the Greenhouse





Island Pacific Academy



Sustainable Initiatives

The purpose:

"The principal's goal was to create a robust Elementary Garden and Sustainability program that could seamlessly be integrated into the grade level curriculum and individual Units of Inquiry. We wanted to empower students by having them take the reins in the garden, teaching them to be responsible, which in turn, makes them confident and independent in their skills. It has been important for students to think about their food sources and food security, caring for their environment, and being connected to their community."

How it started:

"The original garden started off with only three raised garden beds. We created a wish-list and parents donated some items. We also held two garden work days where parents came with their children and helped clear land space and build new garden beds. In keeping with our sustainable efforts, we reclaimed old items and repurposed pallets. We were awarded grants to install a professional drip irrigation system, acquire new tools and supplies, and maintain an edible garden."

Upkeep:

"We consider the students to be the 'guardians of the gardens,' so they have access to the sink, tools, and the garden itself during recess and any other free time. We apply for various grants annually to help maintain the garden's financial needs."

Benefits:

"Our goal is that the garden is a part of IPA's school culture. We want learning to be intentional, so we integrate gardening into our Units of Inquiry. For example, the First Graders study 'Farm to Table,' and as a part of their learnings, they now hold a Farmers Market, selling items harvested and products created from the garden. Learning is organic and can look different depending on the objectives of the year. This past year we focused on art and beautification projects, so we made peace poles, painted rocks, made mosaic art, and a large-scale fairy garden. We also focused on refurbishing an old pallet for succulents and establishing an easily accessible garden area next to the Kindergarten classes."







Island Pacific Academy



Cont'd

Thriving Plants:

"We plant things that thrive in Kapolei's warm weather: spinach, chard, kale, and eggplant, to name a few. However, any type of plant that does better in warmer climates grows well on campus. In the cooler months, we've had a lot of success with lettuces and cooler weather vegetables."

Pest Control:

"Because the students eat what they grow, we do not use pesticides. Organic gardening provides authentic learning opportunities for students because pests are picked off by hand, students learn about insect life cycles, differentiating between insect friends and foes in the garden, and more."

What's Growing:

"IPA currently has 18 garden boxes, an area for Native Hawaiian plants, a separate garden for the kindergarteners, and garden boxes around the elementary building for students to maintain flowers."

In the Gardens:

- Succulents
- Leafy greens (lettuce, kale, arugula, spinach, chard, etc.)
- Jalapenos
- Bell peppers
- Eggplant
- Herbs
- Edible flowers
- Tomato
- Cucumbers
- Squash
- Aloe
- Native Hawaiian Plants: Akia, Milo, 'Uala, Kamani, Ulu, Lilikoi, Ki, Kukui, 'Ilima Papa, Olena, Naupaka, & Nanu

Gardening Comments:

"It has been a goal to create a garden space that our school community can use for learning, enjoyment, and respite. When we see students and staff alike using the garden to take a walk, pick some herbs, enjoy the weather, or spy some roly-poly bugs, we know the garden is serving its intended purpose."

- Katherine Jones, Sustainability and Innovation Coordinator







Island Pacific Academy

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Student Gardens



Kindergardeners planting seedlings



In the garden



Keiki harvesting kale









University of Hawai'i -West O'ahu (UHWO)

Student Inspired

How it started:

"A student inspired the creation of the Student Organic Garden at UHWO. The garden has now been active and operable since the fall of 2013. This garden serves as an experiential, 'living laboratory' for undergraduate students across disciplines, especially those enrolled in the Sustainable Community Food Systems Bachelor's Program on campus. UHWO employees, students, and volunteers help to cultivate the garden. The land that the garden occupies now has previously been a sugarcane plantation, conventional (non-organic) vegetable farm, and a construction site for the campus. Given this history of soil exploitation and degradation, much of our efforts have gone towards bringing the soils back to life using organic matter such as compost."

Benefits:

"The garden feeds [mind, body, spirit] those who help tend to the plants. Volunteers [from both our campus and broader West O'ahu communityl often are able to take produce home. Many volunteers and former student employees have been inspired to start their own home gardens."

Upkeep:

"Community workdays are usually on the 1st Saturday of the month during the Fall and Spring semesters. Volunteers are welcome and RSVPs are highly encouraged. To keep up-to-date with our garden programming and workday schedule, see the UHWO events calendar and/or follow the UHWO garden's Instagram page (@UHWOgarden). Students in the Sustainable Community Food Systems Program are hired to work in the garden too."

What's Growing:

"Most of the plants we grow are edible and often medicinal. Some non-edible plants include flowers for attracting pollinators and for lei-making. Lei plants include ma'o, 'ilima, lā'ī, and a'ali'i. What we grow is based on the changes in weather and temperature throughout the year; however, some of the edible plants we are currently growing include cooking herbs (i.e. parsley, lemongrass, basil), bananas, eggplant, and cucumbers."

-Tasia Yamamura, Program Coordinator





University of Hawai'i - West O'ahu

University Garden

Pest Control:

"Some of the most common pests we deal with are aphids, white fly, spider mites, and cabbage moths. Because we are an organic garden and don't use synthetic herbicides or pesticides, we often use BT

(bacillus thuringiensis), soapy water (we use Dr. Bronner's), and neem oil. However, one of the most important aspects of integrated pest management is to grow a diversity of crops and caring for the life in your soil as preventative measures."

Gardening Comments:

"It can be intimidating to start gardening but we encourage you to try. It takes practice and observation of what likes to grow (and where) in your space.

Hawai'i imports so much of our food (approximately 90%) so anything you can grow yourself contributes to our self-sufficiency. And because you have a relationship with those plants and harvest them right before cooking, they'll taste better!

Even just buying green onions from the supermarket and planting the roots in a small container is a start!"

-Tasia Yamamura, Program Coordinator















How it started:

"The garden got started in 2006 when Pu'uokapolei got adopted. Programing started initially for the environment as a place the community could enjoy. Volunteers and donations helped to start the garden."

Benefits of gardening:

"The garden brings connectedness to the community. We care for the garden the same way we honor this place. There are a lot of components to gardening such as healing, the ability to create space for the community, and the overall support of the community.

Upkeep:

"Through community workdays and after school efforts, students play an integral role in up-keeping the community garden."

Garden Pests:

"Pests are not a prominent problem at Pu'uokapolei. They come and go, but are handled accordingly."

Types of Plants:

"A lot of native plants can be used for lei making, medicinal uses, and for cultural purposes. The ti leaves thrive most in the garden."

--Miki'ala Lidstone, Site Adopter



Pu'uokapolei Garden in the Park









Garden Workdays





Keahumoa Place Resident Tended Garden



How it started:

"The management company at Keahumoa Place wanted to figure out what would be beneficial to the community and they took into consideration what the community wanted which was a community garden. I tried to reach out for donations from local hardware stores (City Mill. The Home Depot), but unfortunately, they were unable to donate so I reached out to local organizations for help. Management purchased the tools for the community. There was a lot of preparation to make signs, maintenance, etc. They had created a day community members could come together and work in the garden. The manager at the apartments was a farmer so they had some background knowledge about plants and starting the garden."

Interviewer: Lilian Burgo - March, 2021 UH - Manoa

Benefits:

"The garden provides a place for community residents to interact with each other and build a good rapport."

Upkeep:

"The residents can garden as they please. There is a lock on the gate to secure the garden safely. We hope to incorporate more native plants, but there are only planter boxes so space for it is limited."

What's Growing:

"At the moment, edible plants are being grown such as:"

- Lettuce
- Herbs
- Tomato
- Carrot
- Strawberry
- Kale
- Eggplant
- **Beans**
- Purslane
- **Bok Chov**
- Ung Choi
- Taro

-Gloria Cheong-Uyesugi, Resident Services Coordinator





Keahumoa Place Resident Tended Garden









Squash harvest







West Loch Elderly Village

Kupuna Program



How it started:

"It originated from the city's department of community services who manages the city's Kupuna programs, affordable housing properties, and direct services across the island. This project was done in collaboration with the City's Department of Climate Change, Sustainability, and Resilience. One goal of the department is food security (affordable food, finding ways to create healthy communities), so that is how this project came about. First, we partnered with the City toward the end of 2020. The project utilized CARES relief funds provided to the Department of Community Services and administered through Hawai'i Community Foundation to the grantee, SSFM International. We used the grant to build 300 grow beds at City owned affordable and special needs housing across the island over a

span of about 30 days in November of 2020. West Loch Elderly Village was one of eight pilot sites across the island giving residents the opportunity to grow food for their communities and possibly sell them at farmers markets. The project also supported several local small businesses and nonprofits through the purchase of locally made garden beds, plants from local nurseries, and installation services provided by four local landscaping businesses: Edible Landscaping & More, Growing Together Edible Landscaping, Higher Ground Gardens, and Island Foodscaping & Design. Kōkua Kalihi Valley provided educational materials as well as plants to some of the sites. Hawaiian Earth Products provided soil. Supersistence provided foodscaping expertise, logistical support, and educational resources. The City & County Community Garden Coordinator and CTAHR's O'ahu Master Gardener Coordinator volunteered time and resources, and a team of planners and project managers from SSFM International managed the overall project."

The building process:

- 1. Identify potential garden sites
- 2. Hire landscapers/experts in foodscapes to do site visits; work with project managers to identify where gardens could be built.
- 3. Passed out surveys to sites.
- 4. Asked how many residents they had, how many residents are interested in participating in a gardening program, asked what tools were needed to sustain the garden, how many garden beds needed etc.
- 5. Identify water supply/irrigation (this was a common issue at all sites).
- 6. Contacted a company called Agrefab, who designed the grow bed where they can deliver all the wood and assemble the grow bed on-site.

-Malachi Krishok, SSFM Community Planning



West Loch Elderly Village





Future:

"The build of the garden was a big push for a significant amount of money, but it offers a model that the city might be able to replicate. Future projects may not be as expensive as it was in a shorter period of time. This garden showed what the necessary ingredients are in terms of finding sites that are interested, seeing if the residents are interested in a garden, finding contractors that are able to install the gardens, figuring out what supplies are needed, etc."

-Malachi Krishok, SSFM Community Planning

Benefits:

"The garden has 75 raised beds created and planted by the County. They are located in two different sections of the complex. Residents were able to sign up for a raised bed close to their apartment if possible. Residents can have more than one garden bed. Each resident upkeeps their own garden bed. Before the garden beds were assigned, residents had the opportunity to harvest the plants the County planted (swiss chard, kale, beets). Skilled gardeners are able to help beginner gardeners. It Increases food sustainability. Residents have food/plants readily available to them rather than going to the store. Not all residents have access to transportation and can leisurely go shopping. I only go grocery shopping every 3 weeks and primarily eat from the garden. Fresh produce is usually pricey and not always available. Extra crops are shared with other residents at West Loch and this opens opportunities for gardening clubs and workshops. The garden creates access to fresh and organic vegetables rather than eating junk food. I learned about different foods and planting foods I haven't tried before."

What's Growing:

"Residents have their own plots and can plant whatever vegetables they prefer with some limitations due to the raised beds. Maximum is 5ft in height, no crops that can potentially grow outside of their designated box. Plants provided by the County include:"

- **Beets**
- Green Onion
- **Bok Chov**
- Various lettuces
- Kale
- Spinach
- Eggplant
- Peppers
- Herbs
 - Mary Brewer, Resident



West Loch Elderly Village

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Garden Beds

Pest Control:

"The garden is all organic. We are not allowed to use pesticides. When the garden was unattended, there were some caterpillars. Since the gardens have been maintained, there have rarely been any pests. Keeping your garden clean and plants healthy is key! All the plants are growing well. Besides pesticides, you can repel pests by Companion Cropping, plant a crop that pests don't like, and plant a Sacrificial Plant (planting a plant around your garden that pests prefer over your crops)."

Additional Comments:

"Sustainable agriculture/gardens should be implemented in schools, senior residential housing, low-income housing areas - everywhere! Residents love the garden and hope other gardens are built around the island."

- Mary Brewer, Resident





Garden Beds



Onelau'ena

Emergency Shelter Garden



Upkeep:

"Staff members do not need to tend to the garden because the residents primarily care for it. This is important and we wanted it to benefit the community. It is remarkable to see it thrive. Kapolei is dry so a lot of drought tolerant foliage was planted; however, because it is tended to so well, it has been successful. We teach residents to share the papaya and only take one green one to cook and leave some to ripen."

What's Growing:

- Ti Leaf
- Eggplant
- Papaya
- Green onion
- Rosemary

How it Started:

"We wanted to incorporate gardening because it is a skill and education that will help residents when they move into their own place. It is beneficial to learn gardening techniques during their time here at the shelter, and is something they can take with them. Hopefully they find this inspiring to encourage their family to do it too. Familes move in and out frequently, but the garden strives nonetheless."

Restoration:

"Blue Zones Project came on site and noticed that we had a bunch of empty flower beds that belonged to the preschool. So I went and received permission to revitalize the flower beds. The community and residents came together to help get the restoration started. It puts a smile on people's faces. The birds come to the garden too."

Garden Care:

"There is always someone pruning it or watering it. The kids go to the garden to pull weeds and tend to it with parents because they cannot be left unattended. A few adults take great pride in gardening because it serves as a stress reliever. The cat comes around and digs up some plants, but for the most part the plants thrive." **Benefits:**

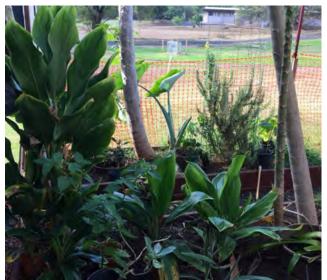
"Residents reap the benefits of the garden! They have harvested papaya and tomatoes. Families plant different plants that they benefit from. The garden has has a lot of mental and emotional healing effects. It is also a place of self care."

Kealahou West Oahu

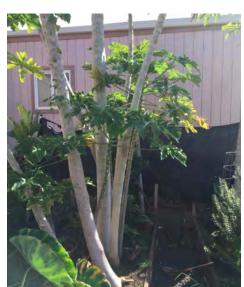


Onelau'ena Restored Garden









Abundant Garden Beds

Edible Greens

Several Papaya Trees







Senator Mike Gabbard's



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Home Garden

How it started:

"My wife, Carolyn and I, started a backyard organic garden at our house in Kalaeloa about ten vears ago because the weather is great for growing lots of fruits and veggies. Our kids would come over and we would always entice them to come over early before dinner to help. Because our soil out here isn't verv good because there is a coral shelf and lots of Kiawe, our garden is made up of raised beds. We built the beds with the rocks on the property and pieces of wood. One bed is made of cinder blocks."

Sustainment:

"We were composting all of our food scraps for many years and made our own bokashi. We then added that to the beds and were blessed with lots of old growth trees in this area. That provides plenty of leaf litter for mulching the beds and we also do Korean natural farming. Most of our garden funding is recycled and comes from money we make when turning in our HI 5 recycling."

Benefits:

"The veggie filled garden has been a great addition to our diet. Especially, since we eat 100% plant based. We like to share produce with our kids. family, and friends. And also, this is a savings for money on our grocery list, because we have a garden. The garden is a calm diversion and a place to go outside and mellow out. It's healing."

Pest Control:

"Cabbage moths, snails, leaf cutter, aphids, and ants. Have been problems for us. We have tried a few methods to control them with things such as neem spray, applications of soapy water and oil, or removing pests by hand. The neem spray has worked the best so far."

What's Growing:

- Apples
- Bananas
- Mangoes
- Papava
- Dandelions Greens: Chards, salad greens, Kale, Millibar Spinach, Arugula
- Sunflowers
- **Sweet Potatoes**
- Carrots
- Ginger
- Taro
- Tomatoes
- Cucumbers
- Basil
- Parsley
- Rosemary
- Mint
- Oregano
- Plumeria
- Pikake



Senator Mike Gabbard *Home Garden*





Apple Banana Harvest



Victory Garden preparation during lock down



Victory Garden a year after lock down









Erika Brown **Backyard Gardener**

How it Started:

"I originally started gardening with my father at a young age and developed a liking to the activity. I carried on that tradition. My father was a landscape architect. One of my jobs with him was to do the weeding in the garden and I didn't like it at first but was able to get into my own rhythm by day-dreaming while I was weeding. I learned to enjoy it, which was weird as a kid. His gardening is where my initial love of it started."

The Build:

"I started with plastic potting benches. I found those from a closing out sale at Kmart and the material was bought for a reasonable price. Hollow tile blocks are affordable materials that can be used as sturdy foundations to elevate your potting benches - to keep the pots off the ground. Shelving from Walmart for tool items were used, and shade tents are essential for plants that need indirect sunlight. It is recommended in hot, dry, low-land areas like my neighborhood. Shade tent supplies can be purchased locally. A lot of soil is recommended for large scale plant projects so I recommend going to Hawaiian Farth Products."

Recommendations:

"If you live in a smaller area (like an apartment), I would recommend doing a container garden, but nothing that gets crazy like cucumbers or tomatoes, those are vining crops. But maybe like green onion. Starting from seeds takes way too long so try to buy starting plants. If you're putting soil in the ground, your soil needs to be nourished with some kind of compost. Places like 'Ewa doesn't have the best soil. Drought tolerant plants are best to grow in Hawai'i because we need to conserve water."

Benefits:

"Gardening is therapeutic. This hobby is utilized to teach others in the community how to accomplish specific gardening techniques for their own uses. I teach planting classes like recycled container gardening."



Upkeep:

"I will water 2-3 times a week during the summer, 2 times in the winter, and I'll pull plants at my work table that need to be worked on. I focus on multiple things at a time. If I see a weed I'll pull it, a leaf I'll cut it. It varies."

What's Growing:

"I grow several different types of plants including sansevieria, a.k.a, mother-in-law tongue plants, succulents and cacti."







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Additional Comments:

"You have to research your plant, figure out what their water needs are, and what their sun or shade tolerance is. You'll see dead plants here and there and wish you could pick the minds of every plant to make it happy but that's impossible. If you're a new gardener, don't spend too much money. Start with 1-2 plants, research them, and figure out where they are most happy in the garden. If you notice burn spots you'll know it's too much sun, then move them to a shadier location. Buy a plant or two, try it out! I'm sure it will make you happy."

- Erika Brown, 'Ewa Beach Resident

Pest Control:

"It's a constant battle. I don't like to use pesticides because I don't want it to poison my dogs. I've been using neem oil with some water, alcohol, and dish soap. I've been trying with more organic ways with neem oil, it's supposed to be some kind of miracle for the plant. I've noticed you have to be a little bit more consistent with the Neem oil, for better treatment of pest resistance. The product commercial name is Purple Action Neem Oil.

Mealybugs will totally eat up the plant and I noticed that plants that are more indoors are more at-risk for bugs. For fly gnats, I put some peroxide with water and spray it on to the soil."



Touring Erika's Garden



Hoya Variegated Hindu Rope



'Iwalani Tseu

Pu'uhonua O Honouliuli

How it started:

"I was diagnosed with cervical and breast cancer so I wanted to make a difference and be an example of health and wellness for my children, for my 'ohana. The next generation will have to follow in the footsteps of their kupuna. I started digging, plowing, planting, and praying a lot. It helped me have a vision of whatever your mind can conceive and believe, it can achieve."

Benefits:

"Before I knew it. I started feeling better and looking better. I was happy and did not think about my illness anymore. When you give to others, it comes back. It's really nice that we can teach keiki today about respect, malama o ka aina, and to get involved raise animals, vegetables, share with your neighbors. Being holistic and educating our children to just be very mindful of what is out there. People in the community come, watch, pray, meditate. It's all about the attitude and gratitude of life. It helps you to be a joyful and happy person. All that we do in the garden makes you a healthier person. It's most important to be emotionally healthy."

What's Growing:

Over 350 variety of plants are growing. Pu'uhonua O Honouliuli is looking for even more to embrace on property. Especially plants that are easy to propagate and give a lot of oxygen.

- Medicinal plants
- Decorative plants
- Lei making and Hawaiian studies plants
- Hawaiian decorative plants
- Holistic plants
- Eatable plants and much more



Upkeep:

"Have a hiki no attitude! Always think of ways to make things better. Kulia I ka nuhu - always strive for the highest. Water the plants - water is healing, for self and everything around you."

Additional Comments:

"Meeting new people is important and adds to wealth of knowledge. We share thoughts, creativity, and activity. So many people have ideas we can learn. It's all about learning and sharing! I had no Idea I would love gardening, but I love it and feel so at peace. Plants have pride too. They want to grow! A Honouliuli Festival is a vision in the works for one day in the furture to be hosted at Pu'uhonua O Honouliuli."







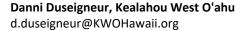


Photo Credit: Blue Zones Project -Kapolei & 'Ewa

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