



# Big Pots, Small Plots

WANDA A. ADAMS

Food security, waste reduction and healthy fresh eating start at home and all in one place: your garden. Even if your yard is only as wide as a windowsill or as deep as a converted milk jug, here's how to grow some of your own, with the help of chic new pets. (Clue: They wriggle, and their poop is garden gold.)

**M**y garden is 15 inches wide and seven feet long. The orchard is two pots in the driveway.

From this meager space, I get enough basil to keep us always in pesto. Enough flat-leaf parsley to use almost daily. Enough ni'oi (Hawaiian chili pepper) to make all-important piri piri (Portuguese chili sauce). Portuguese cabbage for soup and healthy sides. A calming whiff of lavender as I brush by. Lemon verbena to lend citrusy flavor to panna cotta. Rosemary to rub on roast meats.

From our dwarf trees we get a half dozen or so Meyer lemons two or three times a year and the odd, precious fig or two on no discernible schedule, if Husband (Sonny Koonce, who calls himself "da Pilipino gardener") remembers to put the netting on to keep the birds away.

This is enough right now. But I've got some arugula seeds a friend smuggled out of Venice, and plans for a window box of greens this spring.

This is urban gardening: modest, unchallenging, no fear. I used to think I had a black thumb, now I know I just lack information, persistence and willingness to fail.

My neighbor, with all three, has an Eden in almost the identical space: taro, bananas, herbs, greens, tomatoes, ti leaves for lau lau, all in pots, hand-built containers and buckets.

A lack of space, say experts, is not a barrier to successful gardening.

## How to get help

Help is available from master gardeners and demonstration gardens (such as the O'ahu Urban Garden Center), books, online sources, garden shops and nurseries and don't forget that chatty green thumb neighbor of yours.

"People have to realize that, in gardening, there is such a thing as a bad parent or a good parent," says Janice Crowl, author of *Container Gardening in Hawai'i: How to Grow Paradise in a Pot*, (Mutual Publishing, 2007).

Taking on a garden is "something like adopting a pet," she says. It will need some place to live, food ("amending" the soil to make it more rich), water, air, light, "exercise" (such as nipping basil buds, to keep it growing

vigorously, not cramped) and health care (pest-eradication measures, which can be as simple as picking the caterpillars and slugs off your veggies).

Furthermore, "when you have something in a container, it's like keeping an animal in a cage. You have to give it everything it needs," says Crowl. Like animals, many plants would rather grow free, in a yard. In the ground, "they can get everything they need," often with even less care, she adds, speaking by phone from her Hilo home. But many can be grown in pots, at least for a time; when they lose heart, they die back.

## Green benefits

At the recent premiere of the new film about agriculture and gardening, *Ingredients Hawai'i*, edible landscape consultant Fran Butera ticked off a gardener's requirements: old clothes and shoes, a resource survey, some study. "Then," she told a packed house during the talk-story portion of the program, "stop stalling and get out and do it. There's no mystery to it."

This audience already knew the reasons to garden: fresher, cleaner food; aiding the environment by controlling your carbon footprint, reducing poisons and limiting landfill additions (via composting and using only organic fertilizers); accessing food in quantities that make sense for your family size (no need to buy whole bouquet of herbs when you need only a few sprigs); the unparalleled thrill of seeing your seeds sprout and buds unfurl.

Example: I pruned my prolific Portuguese cabbage six days before writing this. Yesterday, I noted bright green shoots stubbling the stalk. I smiled goofily, as though at a newborn.

This happens every day for gardeners. As do disappointments, like slug-chomped leaves and inexplicable withering.

Both come with the package, says Butera as she showed off the backyard 7-by-20-foot raised bed garden of clients Ian and Carlene Damon in Kahala. "The notion of success in our society is we don't get sweaty and dirty, and we certainly never fail," says Butera. "But gardening isn't an instant gratification thing. It can be an exercise in patience."

## Suburban abundance

The Damon garden, planted with everything from herbs and radishes to less familiar Malabar spinach and tatsoi, produces much more than their family of five can consume. They donate the extras to Aloha Harvest, which disseminates fresh food to the needy.

As daughter Flora strolled out of the kitchen with a kale smoothie, and her sister Matilda snipped chives for the neighbors, Carlene Damon, who grew up in a family with a mainland country home that supplied produce and flowers for their city apart-

## FIVE STARTER GARDENS

### Standard

- Lettuce
- Greens: chard, kale
- Carrots
- Cherry or other small tomatoes

### Hawaiian

- Dry land taro (for leaves; Chinese bunn long)
- Hawaiian chili peppers
- Sweet potatoes or yams (if room for vines)
- Turmeric or 'olena (ginger-like rhizome for color, medicinal tea)
- If room for a tree: banana, coconut or breadfruit)

### Mediterranean

- Basil
- Arugula
- Tomatoes
- Portuguese cabbage or chard

### Asian

- Green onions
- Japanese (long-type) eggplant
- Horiso (spinach)
- Mizuna (or shiso mustard, won bok or other baby Asian greens)

### Southeast Asian

- Lemongrass
- Thai basil
- Mint (water mint)
- Ginger

Sources: Fran Butera, Janice Crowl, Heidi Bornhorst, UH College of Tropical Agriculture & Human Resources

—W.A.A.

Windward Orchid Society  
presents  
**Go Green with Orchids**  
32<sup>nd</sup> Annual Spring SHOW & Plant SALE  
Fri, March 16<sup>th</sup>—Sun, March 18<sup>th</sup>  
S.W. King Intermediate School  
46-155 Kamehameha Hwy, (2 blocks N. of Windward Mall)  
[WWW.WINDWARDORCHIDSOCIETY.ORG](http://WWW.WINDWARDORCHIDSOCIETY.ORG)

## Olomana Gardens Classes

### Learn to Grow Food

**Saturday 3-5pm**  
*Introduction to Aquaponics*  
\$100 per person, includes handbook

**Saturday 5-6pm**  
*Introduction to Worm Composting*  
\$10 per person, discount on worm purchase included

We will also build aquaponics systems to order.

## Olomana Gardens

**Tours available daily**  
Please call 259-0223  
Hours by appt. only: Mon–Sat 8:00 am.–5 p.m.  
41-1140 Waikupanaha St., Waimanalo  
[OlomanaGardens@hawaii.rr.com](mailto:OlomanaGardens@hawaii.rr.com)  
[olomanagardens.com](http://olomanagardens.com)



ment, says she's been surprised at how tough gardening in Hawai'i can be, with no winter to kill off pests. Still, she says, her three children love it, and even children who wouldn't eat vegetables like to try produce from a garden they've helped nurture.

## Planning and planting

Here are the keys to a fruitful kingdom: space, seeds or starts, light, air, water, soil and the right plants in the right place (not to mention things you actually want to eat).

And your brain. "Before you

plant, walk thoughtfully through your space, observe, think, make some notes," Butera says. (This is what her company does during its first site visit. For \$135 the initial consult lasts two hours and includes a written report and advice.)

## Space, in ground or not

Even a few feet of walkway, a narrow side yard, a patio, a deck or a miniscule back yard can be a food garden. For decks, balconies or lanai, choose conventional unglazed clay (heavy, but plants like them because they're porous)

or lightweight plastic, fiberglass, resin, stone composites or even old wood wine caskets and recycled styrofoam coolers, Crowl says.

Anthony Duarte, a Kāne'ohe retiree, handyman and inventor, has developed an ultra-easy system that requires little except a five-gallon bucket, a perforated platform that fits inside (patent pending) and a hole through which a hose nozzle can be fitted. Soil goes on top of the platform and fills the bucket, water and liquid fertilizer go in the bottom. The plant "drinks" from below and there's no overflow during watering. Other, similar bucket systems, available online, use a bucket within a bucket.

"I'm not a farmer," says Duarte, but he manages to coax bell peppers, carrots, tomatoes, cabbage and other vegetables from the buckets that line one side of his home.

If you've no land at all, plant small, lightweight greens or cherry tomatoes in a window box. Or place herbs or vines in mounted, waist-high gutters onto the exterior walls of the house.

In a yard, a 4-by-8- or 8-by-8-foot raised planter-bed, framed in low-maintenance, waterproof, recycled "plastic lumber," can easily meet the veggie needs of a small household, Butera says. (Measure and clear the space down to the dirt, build or buy the box. Start with a base of porous, readily drained material such as cinders, then layer with rich soil.)

Plans and kits for raised beds, bucket gardening and gutter gardening can all be found online.

## Seeds or starts

There are few things more seductive than brightly colored seed catalogs. But anything unproven in island growing environments may be a waste of money. Get a friend or neighbor to pot their trimmings. Or, Crowl suggests, attend or host a seed exchange party. (See resources list.)

Become familiar with your microclimate (sun/shade, rainfall, pests, windiness), and choose plants likely to do well there. Be aware that even neighboring properties can have very different microclimates. Start with hardy examples from our easy-grow recommendations. (See accompanying list.)

## Light

All plants require it. Seed packets helpfully tell you whether it needs full sun, part sun or shade. Consider the proposed location of your growing space and track the sunlight at different times of day. (There really is "an app for that": Sun Tracker on the iPhone.) Air/wind: Air is intertwined with humidity, moisture, temperature, pollution, contaminants, wind. Plants, like us, need fresh, clean air; they likely won't do well in a closed-off, stuffy corner (although that might be just the right place for your compost container or worm box—keep reading). If you're gardening on a rooftop or deck, wind can batter and break plants; consider a wind break, which can also serve to absorb and reflect warmth to the plants or anchor a trellis, if you need one.



Fran Butera of Foodscapes Hawaii.

## Water

Horticulturalist, author, columnist and gardening consultant Heidi Bornhorst says water is a challenge for high-rise and condo gardeners. A dripping balcony garden can mean stiff fines and "huhu" neighbors. Investigate covenants governing what you can do on your balcony; determine what weight the deck or balcony can bear; consult an expert on how to water without leakage. Helpful measures: Line container boxes with plastic sheeting; place saucers under pots; water sparingly but more frequently.

## Soil

Here's where it gets daunting. Breathe. When Butera ran down a list of components for healthy soil, I

was beyond intimidated. She listed potting soil, compost (she and many others favor Menehune MAGIC, made locally by Hawaiian Earth Products) or vermicast, plus seaweed, manure, paper shreds and/or coconut fiber (all available free if you're willing to do the work).

Can't I just buy something at the store, I whined? Yes, you can: You need soil and you need "amendments." Crowl recommends organic "media" (potting soil blended with matter that helps keep it light, not compacted). To this, Butera adds compost, made at home from kitchen waste, and vermicast or an organic fertility mix, such as bone-meal, kelp meal or fish meal.

There are as many recipes for such mixtures as there are gardeners willing to look beyond the Miracle Gro package. Whatever you choose, the last step is a light mulch to hold in moisture and keep plants cool.

## Food

Periodically, soil needs feeding, Butera says. You can use a commercial fertilizer (bad, bad, say the environmentally aware) or, instead, homemade or commercial compost or vermicast and seaweed, or well broken-down horse manure.

"Soil is the mother," says Butera, "and you know what they say, if Momma ain't happy, ain't nobody happy."

## EASY TO GROW HERE

- Arugula
- Basil
- Carrots
- Chard
- Chives and green onions
- Cherry-type tomatoes
- Chois (the various Chinese cabbages)
- Kale
- Lettuce
- Mint (any kind)
- Ni'oi (Hawaiian peppers)
- Okinawan spinach (bush) or Malabar spinach (trellis)
- Parsley
- Portuguese cabbage (couves)
- Purslane
- Radishes
- Rosemary

Don't forget fruit: Enquire about dwarf Meyer lemons and other citrus, papayas, bananas, even figs and mangoes if you have room for large pots or kid-size trees. Or plant a papaya crown; they're pretty and don't take much space.

—W.A.A.

## Grow Organic Food at your Home, School or Business

- Kitchen Garden Design
- Installation
- Maintenance
- Organic Seedlings
- Gifts for Gardeners
- Cooking Lessons

foodscapes HAWAII

375-8025 • FoodscapesHawaii.com

TWITTER: @FoodscapesHI

For over 30 years EM Technology™ has been used around the world as a holistic alternative to toxic agricultural chemicals and cleaners.

**EM-1®** provides simple & healthy solutions for:

- Organic gardens, lawns, and houseplants
- Accelerating composting, EM® Bokashi & food waste recycling
- Improving water quality in aquariums, ponds and water features
- Eliminating odors in the home (pets, garbage, drains, laundry, etc.)
- Cleaning without toxic chemicals

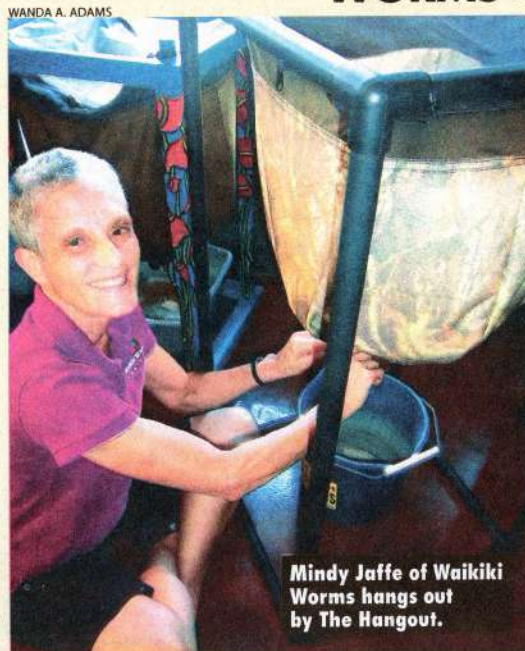
When you see **OMRI Listed** know the product:  
Is Trusted by Organic Farmers and Gardeners  
Protects Your Family and the Environment



**EM HAWAII LLC**  
Effective Microorganisms™

Distributed by  
EM HAWAII, LLC  
(808) 548-0396  
www.emhawaii.com  
Product of USA

## WORMS = FERTILITY



Mindy Jaffe of Waikiki Worms hangs out by The Hangout.

Rich soil means a fruitful garden. Get a little help from some small, easy-to-work-with friends: worms and their coworkers, a host of small bugs that perform the worms' food prep in your home compost system.

Set aside your prejudices, please. Worms and their pals are no more "dirty" or distasteful than dogs (hair, drool), cats (hair balls, litter boxes) and birds (poop, feathers) — animals we routinely welcome into our homes. And they're a lot cheaper and more easily contained.

So says Mindy Jaffe of Waikiki Worms and the hundreds of people (including students from 129 local schools) she's taught to put banana skins and potato peels to work in tidy, easily maintained composting systems. (Over at Ewa Blue Worms in Kapolei, they partner worms with prize-winning rabbits: The bunnies live atop the worm beds.)

Pluses: less 'opala to transport and process, no need to buy fertilizers and a nutrient-rich plant-growing environment technically known as vermicast (that's worm poop, to you).

Jaffe's favorite for small householders: The Worm Hangout, a V-shaped drawstring bag made from

a high-tech, breathable synthetic fabric and hung from a lightweight PVC pipe frame over a small drip container. The Hangout is readily contained in a corner of the kitchen, the garage or a handy closet. The smallest requires just 17 square inches of floor space and stands about waist-high on an 11 year old. It costs about \$215 to get started, worms and all.

Waikiki Worms also sells stackable, perforated plastic bin systems suitable for larger households and people with sprawling gardens and strong backs.

Jaffe lives in a 12-by-14-foot studio apartment and has been composting for years even though she doesn't garden. (Her vermicast becomes sought-after Christmas gifts.)

Says Jaffe of her squirming workforce: "They're very efficient, very quiet, they never complain and they eat whatever you give them." And no, the waste, napped in shredded paper and cardboard, doesn't stink up the joint.

Jaffe said the average household generates 4 pounds of usable food waste a week (dairy and meat products aren't used nor are some harder-to-break-down items such as papaya seeds). If 5,000 of Hawai'i's households embrace the worm, that's 20,000 pounds a week, 520 tons a year.

And it's charitable too: the "Special Blend" shredded paper is put together by the Special Education classes at Pearl City High School. Its \$5 a pound, or just tear up your own scrap paper.

To start, dump some shreds into the Hangout bag, add worms, water and edible castoffs.

Jaffe recommends keeping an airtight plastic container in the freezer for daily waste; freezing actually helps to start the breakdown process. Continue feeding weekly.

In The Hangout bag, tiny creepy-crawlies munch on the goodies, converting the organic matter to a gluey paste.

In six months, undo the drawstring and harvest 20 to 30 pounds of dark, moist, fine-textured vermicast to mix with potting soil. As you dig out the finished product, the worms eat on in the upper part of the bag, where it's moist and relatively airy. They don't like compacted spaces, light or dry conditions.

As Jaffe talks with me, a customer drops by to pick up some worms for his two-month-old system; he's so enthusiastic, he's expanding, he said. "People love their wormies," comments Jaffe.

—W.A.A.