MOHO KITCHEN BULLETIN

FALL 2025 VOLUME I, NUMBER 2

PUBLISHED BY THE MOHO BUILD COMMITTEE
www.hawaiianacres.org/mohokitchen
a project of the Hawaiian Acres Community Association
a 501(c)(4) not-for-profit organization
PO Box 368, Kurtistown, HI 96760

MOHO BUILD UPDATE

Moho Build Committee Chairs Sandy Margriter, Shannon Matson
Commercial Kitchen Technical Assistance Representative Joanna Haberman

Many exciting things have happened since our last report. In June, Project Manager **Riaan Mattheus** assisted in securing **Cal Ballard** as our architect, as well as **Terin Gloor** from **Green ʻĀina** as our civil engineer, **Art Russell** from State of the Art (**SOTA**) as our electrical engineer, **Charles Cavedoni** from **Hakalau Engineering** as our mechanical engineer, and **Jeddy Lim** from **JPB Engineering** as our structural engineer.

A traditional blessing of the land led by **Kahu Kimo Peleiholani-Blankenfeld** was held on June 21. The event was well attended, and it was a gorgeous day. The goal of the blessing was to honor the community's connection with the land and recognize the importance of being good stewards for future generations.

Recently, Green ʻĀina completed a topographic survey of the site, and approximately one acre was cleared and graded. Unfortunately, the County of Hawaiʻi Department of Public Works sent us a registered letter stating that an anonymous complaint had been filed and that we were required to submit a grading permit. Our application for the permit has just been submitted to the County of Hawaiʻi.

We are pleased to share that on September 4th, the Hawai'i County Windward Planning Commission approved our application to amend the **Special Use Permit** (SUP) for the operation of a new certified incubator kitchen at the Hawaiian Acres Community Center. We can now also have more classes at the community center and vendors at our weekly community market. We are grateful to Riaan for drafting the SUP amendment and working with the County of Hawaiʻi to secure the application's approval.

The architect provided preliminary drawings for a 28′ × 70′ (1,960 sq ft) structure that will house the community center and commercial kitchen. The initial drawings are now being revised due to space constraints for the exhaust hood's ductwork. Once the plans have been finalized, the architect will submit them to the County of Hawaiʻi Planning Department. At this point, we will begin our search for a licensed general contractor. Interested candidates can use the lead time to start assembling bids that can be quickly revised when the county gives their final approval. For more information, please contact: *om@hawaiianacres.org*

The combination of inflation and overly optimistic estimates of project expenses is forcing us to deal with cost overruns. After administrative fees (e.g., fiscal sponsor and project manager), architect, engineers, and land clearing, we will have approximately $400,000 remaining from the ARPA grant. With an additional $200,000 from HACA, we will have a total of $600,000 to construct a new community center (1,288 sq ft) and a 28′ × 24′ (or 672 sq ft) hot kitchen. Furthermore, we need to determine the most optimal and cost-effective way to provide power to the building, either through photovoltaics or by purchasing electricity from HELCO. The HELCO option would also require the installation of 3 utility poles at $10,000 each, for a minimum of $30,000. A large propane "pig" will also be required to store fuel for the hot kitchen. Finally, we need funds to purchase gravel for the community market and parking area.

Obviously, we must generate more funds via grants, fundraising events, and donations. We appreciate all who can help bring this project to reality. Please consider volunteering and donating!

Mahalo for your support!

ANNOUNCEMENTS

Our web page is moving. We will keep the domain for Moho Kitchen (*www.mohokitchenhi.org*), but we are discontinuing our subscription with Squarespace. Anyone visiting the website will be redirected to *www.hawaiianacres.org/mohokitchen*. Merging the two websites will reduce the cost and time required to keep the sites up to date.

If you would like to contribute articles to the *Moho Kitchen Bulletin* or assist with fundraising and grant writing, please send an email to Sandy at *mohokitchenhi@gmail.com*

If you're interested in learning more about food handling and operating a commercial kitchen, visit Hawai'i Commercial Kitchens at *www.hawaiicommercialkitchens.com*

Our community farmers' market will be open every Saturday 10am to 2pm. Please check *www.hawaiianacres.org* for cancellations due to extreme weather. Thanks to your generous ongoing donations, we're able to rent a portable toilet and provide soap and water.

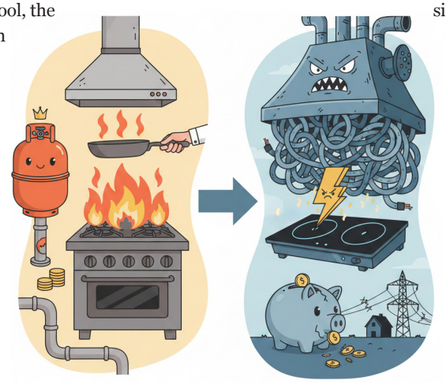
THE CULINARY CIVIL WAR: GAS vs. GRID

by Gemí LeGogo

Designing a commercial kitchen is not a matter of interior decorating; it is a high-stakes geopolitical negotiation, a turf war waged between the fundamental forces of Fire and Wire. The age-old champion, the roaring gas burner, faces a sleek, modern challenger in the form of the all-electric armada, armed with induction hobs and infrared decks. The question isn't just which one cooks better, but which one can be tamed without bankrupting the entire operation or triggering a regional power outage.

The Gas Dynasty, the traditionalists' choice, operates on simple, brute-force thermodynamics. Chefs love the immediate, visible flame, the reassuring whoosh of ignition, and the heavy-duty infrastructure that supports it. In many places, gas is reliable and comparatively easy to transport via subterranean pipes or hulking propane tanks. But the price of this culinary romance is paid in ambient heat. A gas-driven kitchen can be miserable, demanding air conditioning and a gargantuan, fire-suppressed Type I exhaust hood—a colossal, greasy sentinel designed not just to vent vapor, but to contain the occasional small-scale inferno. The gas kitchen is loud, sweaty, and fundamentally analog.

Enter the Electric Revolution. Sleek, efficient, and eerily cool, the all-electric kitchen is the darling of energy-efficiency consultants. Induction technology excites the ferrous molecules in the pan bottom, heating the food, not the air. Induction cooking sounds like pure culinary magic until the electrical engineer arrives, clutching a clipboard like a weapon. The induction hob doesn't just need a plug; it requires an industrial-strength, phase-correct power cocktail. Suddenly, the kitchen designer must determine whether the local utility offers 208 volts or 120 volts, and whether the system is single-phase or the powerful but complex three-phase—a concern previously reserved for factory managers and high-tension wire enthusiasts. This voltage/cycle obsession is the electric kitchen's Achilles' heel: immaculate efficiency requires immaculate power.



The true comedy, however, is reserved for the logistics of rural installation. Running a new, heavy-duty electrical service capable of feeding a bank of induction fryers is less a design choice and more an act of infrastructural aggression. The estimate for running the correct gauge of wire and the necessary transformer often exceeds the cost of the entire building. In many rural access scenarios, the messy, old-fashioned solution—a massive propane tank or a diesel generator that smells slightly like a truck stop—becomes the only fiscally sane choice.

Finally, we return to the exhaust hood, the silent, hulking arbiter of the great culinary divide. Because induction only heats the pan (not the air), the vapor plumes rising from an electric cooktop are far less saturated with grease and significantly cooler than those generated by a gas burner. Induction sometimes (but not always) allows the kitchen to utilize a simpler, less expensive, non-fire-suppressed Type II hood, or even a simplified ventilation system, turning the oppressive metallic beast of the gas kitchen into a comparatively gentle, stainless-steel option. The fight between Fire and Wire ultimately comes down to a choice: pay for high-voltage infrastructure and less elaborate venting, or pay with more ambient heat and a colossal, fire-extinguishing exhaust system that requires its own line item in the annual maintenance budget. It's a choice that defines not just the food, but the very architectural soul of the establishment.

MOHO KITCHEN BULLETIN

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We welcome your submissions!
Please send your stories or story ideas, drawings, or business cards for advertising to:

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ILLUSTRATIONS BY GEMÍ LEGOGO

INTRODUCING HYDROPONICS

by Angelic Ebbers

I never used to have a green thumb. I'd managed to kill plants with either too much or too little water, and when my plants lived, they tended to be small and unproductive.

Plants need lots of sunshine on their leaves plus water, nutrients, and oxygen on their roots to thrive. If those needs are met, they grow to their maximum potential. Soil is a medium that can deliver the water, nutrients, and oxygen to the roots of plants. It also serves to provide physical support and very importantly, keeps roots in a cool and dark environment.

The art of nurturing soil so that it provides a perfect environment for plants is not something I have ever figured out. My best results came from buying soil in the store.

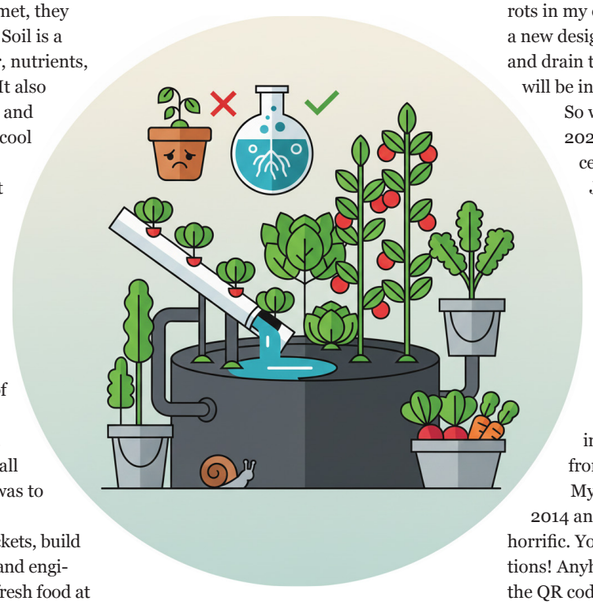
I'm an engineer and most of my hobbies involve building or creating something, whether out of fabric, yarn, wood, leather, metal, or plastic. I decided to experiment with hydroponics and it turns out all I needed to find my green thumb was to get rid of the soil.

I found that I can recycle old buckets, build systems out of plumbing supplies, and engineer all kinds of solutions to grow fresh food at home for my family. The plants grow incredibly fast and I generally only need to check or top up reservoirs once a week or so. Success is achieved by following simple recipes and rules, and monitoring the conditions (temperature, pH, EC, darkness) and making adjustments.

In a nutshell, hydroponics involves dissolving nutrients into water to feed plants. Additionally, you need to ensure the plant's roots are cool, dark, and have enough air and oxygen. Everything I learned about hydroponics came from the internet and YouTube. There is a wealth of free information out there. One of my favorite channels is named Hoocho. Hoocho is a guy in Australia and he has experimented with every kind of hydroponic growing method that exists. He also shares some really fun timelapse videos.

I've primarily experimented with the following techniques (so far):

Kratky: Invented here in Hawai'i, this approach requires no electricity or pumps. It is best used for leafy greens and herbs that finish growing within a month or two. If you've seen Hydroponic Hut lettuce—it's grown this way.



Nutrient Film Technique (NFT): A thin constant film of water flows along the bottom of flat pipes that the roots rest upon. I made mine out of downspouts that I shaped with a heat gun. This system requires a pump to run 24/7. Great for lettuce, cabbage, and herbs. If plants get too big, they choke out the pipe and block water flow and generally become unhealthy.

Dutch Buckets: This uses an inert medium like clay pellets or coconut coir to support the plant and deliver water containing nutrients while staying porous enough to provide lots of air gaps. The buckets are fed water from the top and aside from a small amount retained in the bottom, excess water is returned to the reservoir. For this system, the pump runs 1-3 times per day. This system is great for plants that will build a large root mass and grow for many months like tomatoes, cucumbers, beans, eggplant, peppers, etc.

Recirculating River: This is my name for the system I made out of 6" PVC pipes. It is something like recirculating deep water culture (RDWC) except growing in pipes instead of buckets. In this system I grow kale, squash, peppers, okra, herbs, and lettuce. If you look closely you'll see thick rubber tape used to wrap the pipes. Without it, sunlight on the pipes warmed the water and grew algae that killed my plants.

What about root vegetables you may ask? So far, I've grown some lovely beets and carrots in my dutch bucket system. I'm planning a new design to be a cross between a flood and drain table and dutch buckets—but that will be in a future story.

So where did I build my systems? In 2023, we invested in a new ferrocement catchment tank (built by Jordan and Pacific Gunnite).

When I realized that I could put a 20×20 square top on it, I became inspired to build a greenhouse.

The brilliant idea: An entire greenhouse on top of a cement cylinder encircled by several lines of thick copper tape to prevent slugs from climbing up. This is the best solution we could invent to ensure our produce is safe from Rat Lung Worm Disease.

My husband contracted RLWD in 2014 and the parasites are absolutely horrific. You just cannot take enough precautions! Anyhow, point your phone camera at the QR code and it will take you to a photo album about our tank and greenhouse. It shows the tank being built, the greenhouse going up, and the plants I've been growing ever since. I've been slowly adding new hydroponic systems, experimenting with different types of plants, and really enjoying the fresh produce. The hydroponics photos start about halfway through the album.

You'll see some side-by-side soil and hydroponic comparisons in the very beginning, though after a few months I phased the soil out again as I just got better results without the dirt! 😀

I hope this inspires some of you to try your own hydroponic experiments, you'll be amazed by how easy and rewarding it is!

THE BEAUTY OF EGGS

by Sandy Margriter

I love the colorful assortment of eggs from the various breeds of chickens I have on my farm—each one a unique work of natural art and engineering.

The color of the eggs is a clever interplay between the shell itself, which can be either a fundamental white or blue, and the final flourish of an outer coating. It's a simple, elegant formula: a brown coating atop a white shell yields your standard brown egg, while that same coating over a blue shell presents the surprisingly sophisticated, highly coveted olive-colored eggs.

These are not just decorative pieces; they are single-serving miracles, beautifully packaged in shells that are a paradox of strength and fragility. Each egg is a miniature nutritional powerhouse, a self-contained vault packed with roughly 6 grams of high-quality protein, essential vitamins, minerals, and micronutrients. They literally contain every single nutrient necessary for the complex journey of embryonic development—a complete blueprint for life in one perfect package.

The yolk, that sunny heart of the egg, tells its own story, though not necessarily one of nutritional superiority. Its hue is less about health metrics and more a vibrant billboard for the hen's recent diet. A deeper yellow-orange color is merely a cheerful accumulation of carotenoids, influenced by culinary choices like corn, marigolds, and paprika.

For the keen observer, the only true internal tell is the subtle signature of potential life: a fertilized egg subtly displays a "bullseye" on the yolk, an elegant contrast to the solid white dot of its unfertilized counterpart. Yet, in a final act of nutritional equality, nature ensures that both are equally healthy and delicious; the difference is merely a biological footnote.

FRESH FROM THE GARDEN

by Sandy Margriter

'Tis the season. Avocados are abundant and the holiday season calls to us for pies. I have been playing around with different versions of avocado pie and find that they are super easy and yummy. They are especially easy to make if you don't mind dairy products, such as cream cheese, sweetened condensed milk, or whip cream. The challenge was making a vegan version of the pie. Most vegan recipes call for regular coconut milk, but so far, I get the best results when I use sweetened condensed coconut milk.

AVOCADO MAMBO PIE *with avocados, limes (and/or lemons), mint; Based on* www.abraskitchen.com/avocado-key-lime-pie/

Ingredients

3 large ripe avocados
1 can sweetened condensed coconut milk
¾ cup granulated sugar
(or maple syrup)
½ cup mint leaves
⅓ cup lime juice
Lime or lemon zest
½ tsp salt
2 teaspoons of agar
(if serving chilled instead of frozen)

Pie Crust

1 cup macadamia nuts or pecans
8 dates (pitted)
Dash of salt
tsp of lime juice
Optional: shredded coconut

Instructions

Make the Crust: Add the macadamia nuts, dates and a pinch of salt, if desired, to a food processor. Process until the mixture holds together when pinched between your thumb and forefinger. This may take a few minutes depending on the moisture of your dates. Dump the mixture into a 9-inch springform pan or pie plate and then pat firmly and evenly into the bottom of the pan. If you're using a pie plate, press it up the sides too. Set aside.

Filling: Prepare the filling by combining all ingredients in a food processor and processing until smooth. Pour into pie plates and freeze for 10-15 minutes.
Serve cold with whipped coconut cream and additional lime zest.

ILLUSTRATIONS BY GEMÍ LEGOGO