





About Us

- We began operations in 2010
- Purpose: To help Hawaii become Food Independent in a sustainable manner
- Currently:
 - 100,000+ gallons of water refilled by rain
 - 16,000+ sf of grow bed soon to be 30,000 sf
 - 325,000+ heads of lettuce grown annually plus salad mixes

CAN YOU MAKE MONEY?

The short answer is YES

ONLY IF.... You have good answers for these questions.

- Who will buy what you grow?
- Can you grow/sell enough units to cover your costs?
- There are other questions but these are the big two!
- FIND YOUR NICHE!!!

Example of Costs

LABOR:

- -1 worker @ \$10/hr = \$20,800 / yr
- Taxes and Benefits make it \$28,000

• UTILITIES:

- Running a large refrigerator 4 days a week
- \$900 / month or \$11,000 / yr

LOTS OF OTHERS

- Capital/Loan Payback
- Seeds, Fish Food and Supplies

Revenue

- Lettuce Example
 - Per 4' x 4' Raft or 16 square feet of grow area
 - Each raft holds 36 plants
 - Plants spend 5 weeks on raft (varies by season)
 - 10 cycles in a year
 - Lettuce weighs ½ lb and sells for \$2 / lb.
 - In the perfect world, each raft produces
 - -36 plants @ $\frac{1}{2}$ lb = 18 lbs x \$2 = \$36
 - -10 cycles x \$36 = \$360 per raft per year

Putting it Together

- Labor = \$28,000 expense
- Raft = \$360 revenue
- To cover ONLY labor, we need
 - 78 rafts or 1,248 sf of grow space
 - 14,000 lbs of sold lettuce @ \$2
 - 270 lbs per week

CAN YOU SELL 270 lbs of LETTUCE EACH WEEK?

CAN YOU HARVEST 270 lbs of LETTUCE WITH 1 PERSON?

Decision Point

- Stay small more than a hobby but less than a business
 - Farmers Markets, small restaurants, CSAs
 - Low labor (you) and low energy (coolers)
- Be Big!
 - Must be competitive with mainland plus shipping
 - Lots of initial capital
 - Grow slowly and methodically big mistakes cost big money
 - The key is SCALE!

Value Add

- First product: Bulk Head Lettuce
- Second product: Chopped Salad Mix
 - High Labor but Efficient Plant Use
- Third product: Living Lettuce Salad Tray
- Fourth product: Bagged Head Lettuce
- Fifth product: Kunia Lettuce Trio Salad Bags
- More to come soon....
- Each product increased revenue per trough or decreased our labor needs.

Quick Snapshot Metrics

- Revenue per raft (or per trough)
- Labor to plant (how many rafts in an hour)
- Labor to harvest (how many rafts in an hour)
- (Revenue Plant and Harvest Labor) per raft
- RECORD THESE WEEKLY TO CREATE A BENCHMARK
- ADJUST PLANTING TO REFLECT ECONOMICS OF EACH PRODUCT LINE

Challenges

- Food Safety Rules and Certifications are critical
 - Agencies are still learning the science of aquaponics
- Large Buyers Demand Consistency
 - Not a lot of room for mistakes learn early
- Acid Rain
- Pests
- Diversifying Too Early

Be Resourceful

- Save Power
 - Waterfalls reduce the need for a blower
 - Time pickup close to harvest to minimize cooler
- Save Capital



