



Finding Profitability in an Everchanging Aquaponic Landscape

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Introduction

- **Hydroponics 18 yrs, Aquaponics 16yrs**
- **Microbiology UCF**
- **Aquatic Eco-Systems for 10yrs**
- **Managed all of the company's aquaponic demonstration operations including Greensky Growers roof top installation**
- **Many years of commercial design , thousands of enthusiasts helped**
- **Left in 2012**
- **Currently the Owner of Chatterson Farms and Aquaponic Engineering and Design**
- **Offer custom and turn key systems through our website www.aquaponicengineeringdesign.com**

Introduction

- **To date we have sold over 250,000lbs of vegetables from our Aquaponic Farm**
- **Our students and clients are selling to over 400 top tier restaurants worldwide on a weekly basis**
- **We have had a waiting list for our farm products for the past three years**
- **By end of 2018 we will have turn-key Aquaponic farms located in Texas, Florida, Illinois, Colorado, Barbados, Jamaica, US Virgin Islands and Oman.**

Defining Profitability

- Profitability and the success of an operation can be looked at in several ways
- The first of course is how much money can the operation make
- In some instances, the entire project is created to actually feed people in impoverished areas.
- In these instances profitability or “Success” is gauged on production and the increase in quality of life that the project can provide, not the income it brings in.

Defining Profitability

- **An aquaponic farms success must be defined in the business plan**
- **By clearly stating this goal your efforts and your teams efforts can be focused from the start**
- **The business plan can ALWAYS be amended if your goals or markets change but it is important to have a clear vision of what you want to achieve.**

Major Factors Dictating Profitability

- **Location**
- **Well thought out business plan**
- **Efficient design**
- **Employees and partners that you can trust and count on**
- **Marketing your products to set yourself apart from the competition**
- **Being First**
- **Ready to work hard- This IS Farming after all!**

Location Location Location

- **Location is much more important than many people know**
- **Good locations may cost more money but can save you money in many other areas**
- **Make it part of your story**
- **In a hyper local produce business, it is important to be part of the community you are serving**
- **Example- Orlando, Fl- 100,000 restaurants, Webster Fl- 4 restaurants. Be smart.**

Location Cont'd

- **Electricity rates**
- **Local code and permitting requirements**
- **Water source- Well or City?**
- **Available labor in the area**
- **Time to markets**
- **Accessibility**
- **Weather Hazards/ Natural Disasters**
- **Safety**

Business Plan

- **Don't get scared, show on paper how you will make money**
- **If you cant show yourself on paper its going to work, you will never convince a bank that it can work**
- **If you build it, THEY MAY NOT COME**
- *****If this is not your expertise- Hire someone to help you. Don't be afraid to ask for help- No one knows it all*****

Business Plan

- <https://www.sba.gov/business-guide/plan-your-business/write-your-business-plan>
- **Business planning tools, Templates, Funding opportunities, Etc**
- https://www.epa.gov/sites/production/files/2016-09/documents/1_aquaponics_business_plan_guide_508_081116.pdf
- **EPA Aquaponic specific business plan guide**

Efficient AP System Design

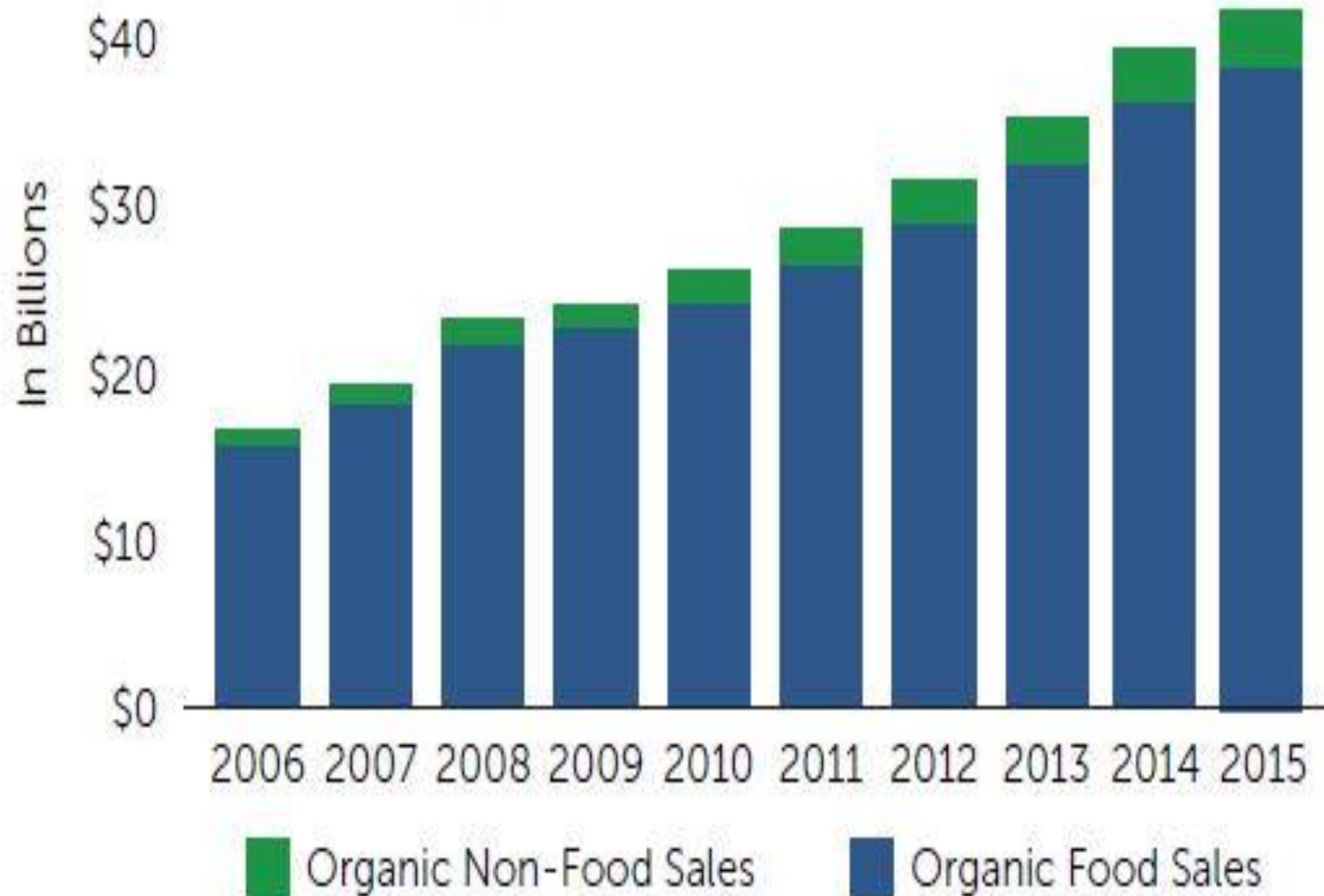
- **Lower startup costs**
- **Lower running costs**
- **Better quality Fish and Vegetables**
- **More robust system**
- **Less maintenance issues**
- **Stand the test of time**
- **Makes you money**



Marketing your Products

- **Marketing strategies vary depending on who you are marketing your product to**
 - **Customers at farmers market**
 - **Local restaurants**
 - **CSA/Produce club program**
 - **Wholesale distributors**
 - **Internationally**
- **Do your research before investing money**

Total U.S. Organic Sales and Growth, 2006–2015



Farmers Markets

- Many markets already advertise to bring people in
- Some markets are sponsored and those sponsors advertise and bring people in
- The majority of your advertising should be focused on Social media outlets (Facebook, Twitter, etc), in the local community (signs, flyers, coupons) and by word of mouth

Farmers Markets

- **Advertising at the market consists of attractive signage, banners, pictures, tablecloth, video, produce display**
- **Nothing advertises like Premium grade produce on display**
- **Focus on the Clean, Local, Pesticide free aspects. Aquaponics is not a valuable marketing word...yet**
- **Look Presentable!**

JUST
DANCE!

www.notjustdancelc.com

DANCE!

Closed

SEWING
&
QUILTING



Local Restaurants

- **The majority of chain restaurants buy from wholesale distributors as their company policy states. It is very hard to change a large corporations policies**
- **Small restaurants are very willing to work with local producers as it allows them to get fresher, better quality produce while increasing their uniqueness by using “local grown, pesticide free” products**

BURGER CRAFT



100% NATURAL

Our Farmers Our Friends

Ocala FL

Lake Meadows Naturals

Provides us with cage free chicken & eggs

www.localhens.com

Clermont FL

Mountain Trail Farm

Family owned & operated

{ All eggs from free range chickens! Est 2013 }

Clermont FL

CHATTERSON FARMS



sustainable farm

Family owned

Produces fruits, veggies & fish in a closed symbiotic environment

aquaponics

White Oak Pastures



grass fed beef

www.whiteoakpastures.com

Local Restaurants

- **How to get your foot in the door**
 - **Bring a FREE sample basket of your farms fresh vegetables to the restaurant and ask to speak to the chef**
 - **The owner may pay the bills but the chef has major pull over produce/herb selection**
 - **Let him know that you are a new, LOCAL, sustainable farm doing awesome things and that you would love for him to try your produce free of charge, just ask for simple feedback via email**

Local Restaurants

- **This opens a dialogue between you and the chef**
- **From here you can gauge his interest in using your product and send him a price list**
- **By now... he knows you, he knows your name, you have left an impression**
- **He isn't looking at a price list from some stranger, he is looking at a price list from the nice local farmer he met last week that has the best produce in town!**
- **SOLD!**

CSA Sales

- **Community Supported Agriculture programs come in all shapes and sizes**
- **Some farmers grow everything included in the package on their farm**
- **Some form a Co-op with other farmers and each concentrates on growing a few varieties that are different from the others**
- **As the name would suggest, you rely heavily on community support and knowing your customer**



CSA Sales

- **Shares are sold for a period of time (6 weeks, 12 weeks, 24 weeks, etc)**
- **Produce is picked up from a drop spot or delivered to customers once a week**
- **CSA's can have 2 members or 1000 members**
- **Depends on your capacity to produce, distribute and market the shares**

CSA Sales

- **Direct to consumer = Premium price for product**
- **How many people can you keep consistently buying before saturating the market?**
- **Do you like talking to people? You better! 😊**
- **Very fulfilling to have the personal connection**

Wholesale Distribution

- **Wholesale distribution should be considered when you can no longer move the volume of produce that you grow through local distribution methods mentioned earlier**
- **It should also be considered if you acquire a better price than what you can obtain locally**



Wholesale Distribution

- **USDA Certified Organic is worth it!**
- **The cost to get certified dwarfs the difference in price you will secure with certification**
- **35-45% increase in selling price**
- **Remember...they tell you what they will pay, you don't tell them**
- **Why compete with soil grown pesticide laden broad acreage farming?**
- **You are creating a premium product, sell it as such!**

Wholesale Distribution

- **Google and your state ag department can help you locate contact information for distributors**
- **There are local wholesale distributors and national wholesale distributors**
- **National: Sysco-Freshpoint Distribution, Alberts Organics**
- **Local: Todds Tomatoes, Barharbor seafood**

Wholesale distribution

- You can have a large farming business without using wholesale distribution
- To do this you need to branch out further in your local area and think about paying a marketing firm to handle your advertising
- Think about alternate locations

Fish Sales

- **Regulated by State Dep of Ag and Consumer Services**
- **License must be acquired to sell fish for human consumption**
- **Facility inspection is not difficult**
- **They want you to succeed! Work with them to stay in compliance**
- **There is no reason for you to lose money on your fish, you should be making money**
- **Don't settle for a loss due to statements from previous growers**







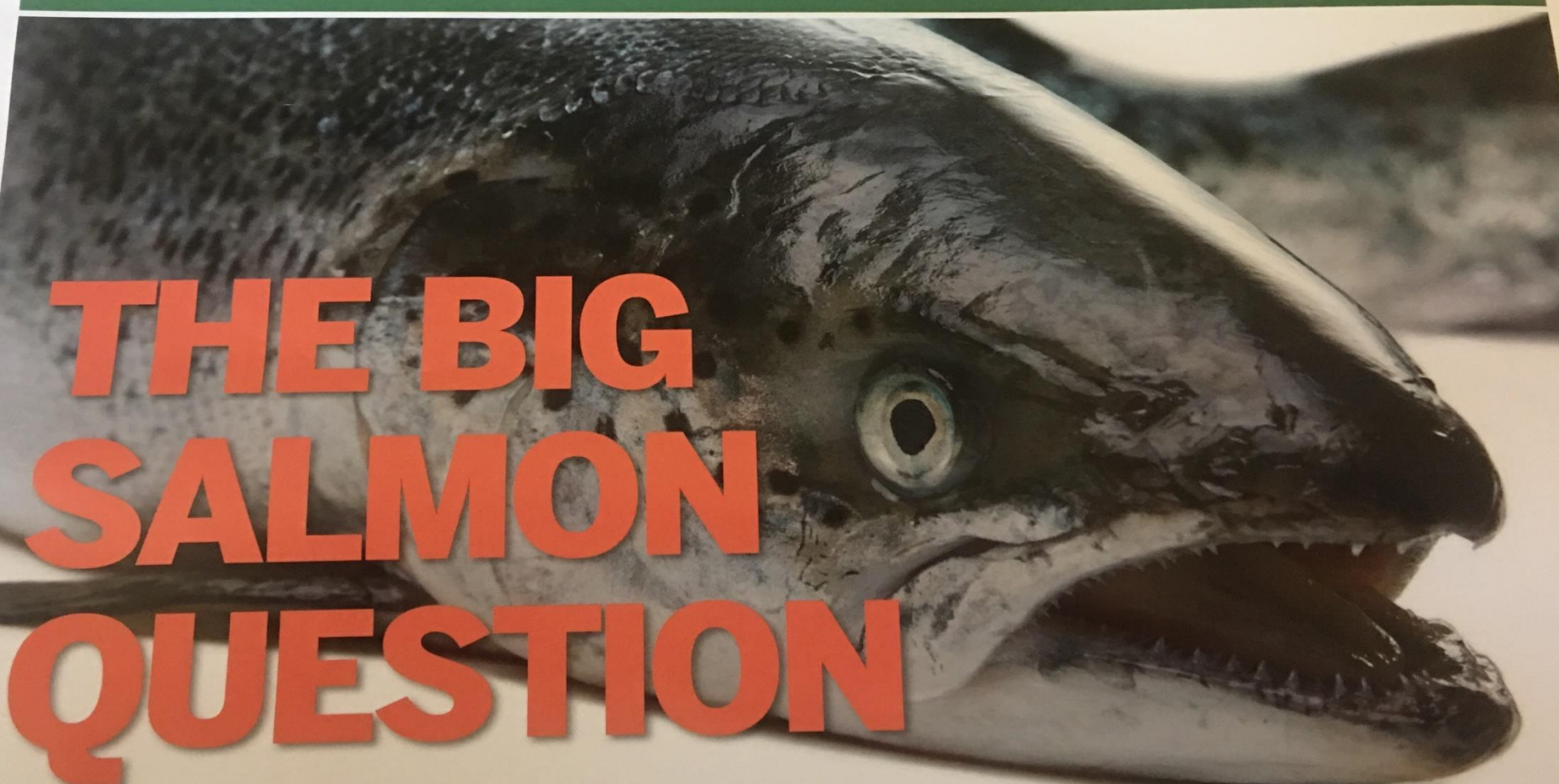


IntraFish

AQUACULTURE

Q1 2018

www.intrafish.com/aquaculture



THE BIG SALMON QUESTION

Is exploding demand best met on land or offshore?

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Fish Sales

- **Fish can be a profitable portion of your business**
- **Obtain a realistic cost for production per lb**
- **Look at how you will sell the fish:**
 - **Filleted?**
 - **Whole on Ice?**
 - **Whole with internals removed (Gutted)?**
 - **Live?**

Fish Sales

- **Fragile product! Ice well**
- **Fish market depends on volume of production**
 - **Local Fish Market**
 - **Local Restaurants**
 - **Farmers markets**
 - **On site farm sales**
 - **Pay lake**
 - **Sashimi Grade product**
 - **Get creative!**



The Value of Fish Waste

- If we are feeding 50kg of feed per day to a RAS growing rainbow trout with a 1.2 feed conversion rate:
- 15,208kg/yr (33,458lbs/yr) of RT
- @ \$2.64/kg (\$1.20/lb) Idaho avg FAO manual
- \$40,150/yr potential before costs (feed, labor, electricity, etc)

The Value of Fish Waste

- If we are feeding 50kg of feed per day to a RAS
- We can grow 112,000 heads or 39,000kg/mo (86,000lbs) of lettuce off of the discharged waste water that often costs money to discharge
- Bibb is at \$2.27/lb nationally wholesale on 8/5/2016
- \$195,220/month or \$2,342,640/yr potential before costs

The Value of Fish Waste

- Oakleaf lettuce- \$1,455,120/yr
- Cheapest price found on USDA list for field grown lettuce-\$1,021,680/yr
- We could grow 3,900 tomato plants and harvest ~ 6400-12,000kg/mo (14,000-26,400lbs/mo)-
- \$252,000-\$580,800/yr a \$3.34/kg (\$1.52/lb)
- www.ams.usda.gov/mnreports/fvwretail.pdf

The Value of Fish Waste

- **Make it part of YOUR STORY**
- **What is the green PR worth to your company?**
- **Can it set you apart from your competitors in a tough market?**
- **Can it open up lending opportunities or grants?**

Waldorf Astoria in NYC?



Conclusion

- **A well thought out business plan is paramount to building a successful operation**
- **You should be able to show profit on paper before you start purchasing land and equipment**
- **Market research should be performed by you or someone you hire**
- **In all cases you want to set yourself apart from the competition to have more control over your final selling price**

Conclusion

- **Nothing beats Local, Pesticide free**
- **Cant compete with prices from China...so Don't**
- **Design your production system with your specific market in mind**
- **Don't be afraid to ask for what your product is worth!**
- **If the numbers don't work on paper...they probably wont work in reality**
- **Don't give up! It's not easy being a pioneer!**



Questions?

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