

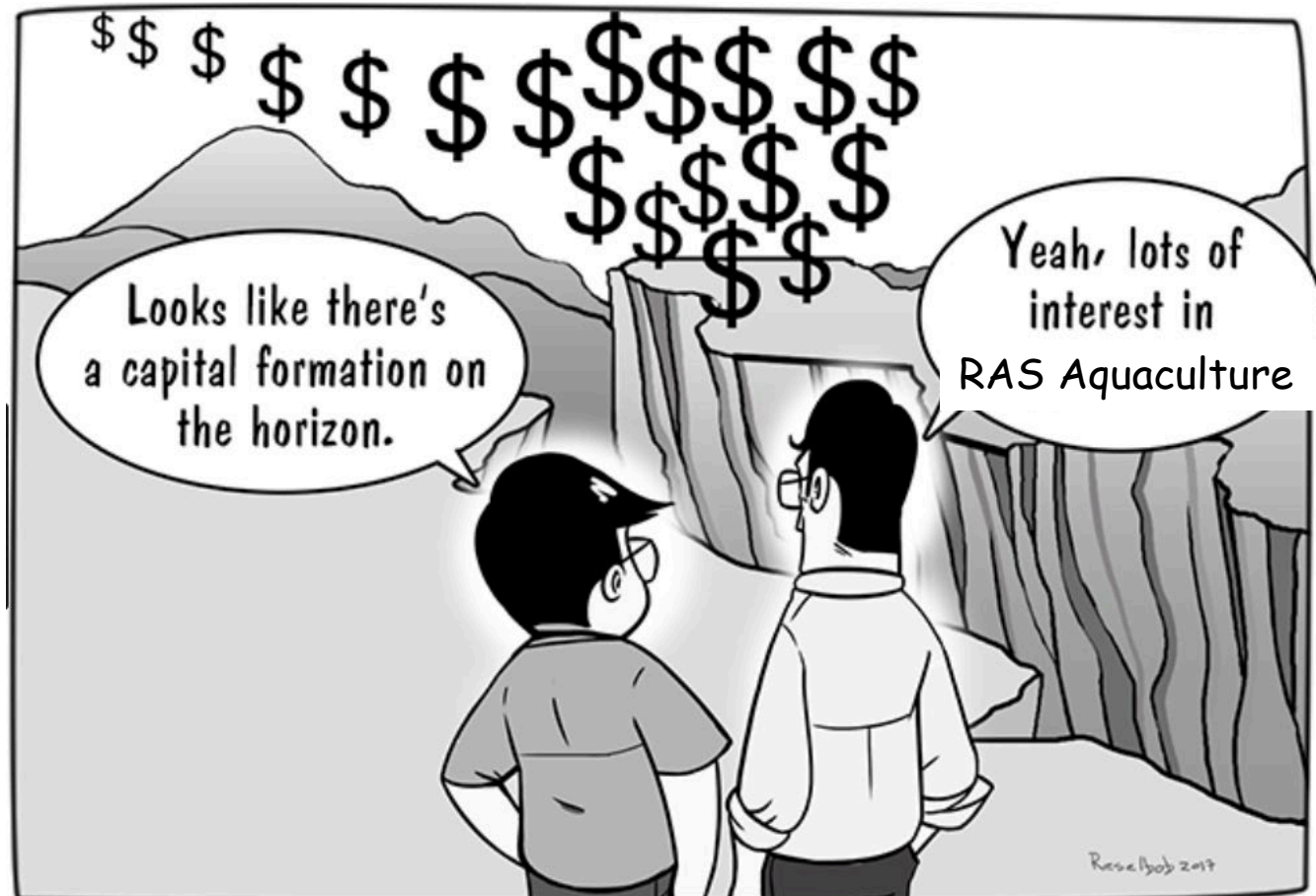


**2018**  
**Aquaculture Innovation Workshop**

**December 4, 2018**



# The Tom Toms are Beating



# Single Point of Inflection

## Eat More Seafood if You Want to Have More Sex, Study Says...

25 May 2018, 8:12 am EDT By Athena Yenke, Tech Times

A survey of 500 couples from Michigan and Texas suggests that couples who enjoy seafood regularly are more inclined to have frequent sex and conceive faster.

The study found couples who eat more than two servings of seafood weekly while trying to conceive have a significantly higher frequency of intercourse and get pregnant in the fastest time compared to other couples. It also linked eating more seafood to many reproductive benefits.



# A Humble Beginning

## The Ultimate in DIY:

- 1,000 gallons—two grow-out tanks
- 300 European Sea bass
- Key components:
  - Rubbermaid,
  - PVC
  - Wife's salad bowl
  - Engineered components supplied by Pentair AES
- Bio-filter and foam fractionation, monthly water changes to manage nitrates
- Auto controller for water temperature, pH, ORP control lights, feeding and foam fractionator



Beware adverse marital consequences...





# Ideal Fish Quick Facts



- 150 metric tons per year of Branzino
- 63,000 ft<sup>2</sup> facility in Waterbury– former Waterbury Button Company facility
- 650 gallons of water system-wide
  - Twelve 2,500 gallon quarantine / nursery tanks
  - Twelve 25,000 gallon grow-out tanks
  - Four 15,000 gallon purge tanks
  - Six 8,500 salt water mixing and storage tanks
  - 150,000 gallon sump
- 350,000 fish in-house on steady state business
  - Fingerlings shipped by trans-Atlantic airfreight from France (LPDS)
- 6 full-time employees, 2 part-time



# Grow-out System

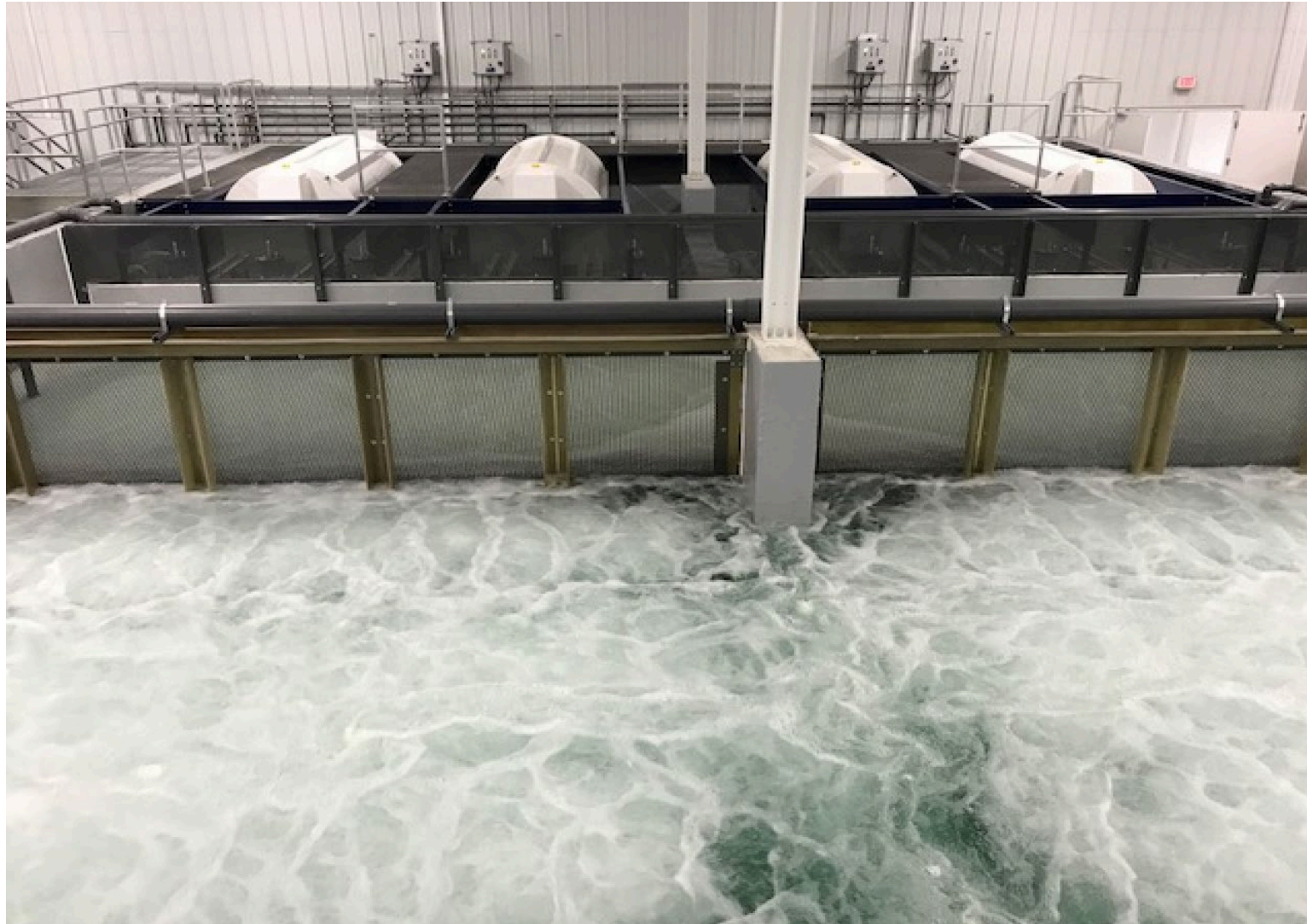




# Branzino Near Harvest 550 gr



# Water Conditioning / Filtration





# Seawater Supply / Storage

---

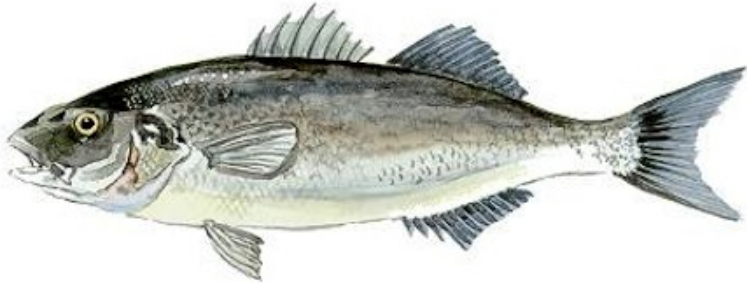


[Buildout Video](#)

# The Branzino by Ideal Fish



(*Dicentrarchus Labrax*)



Fish from Med on top - Ideal Fish on the bottom



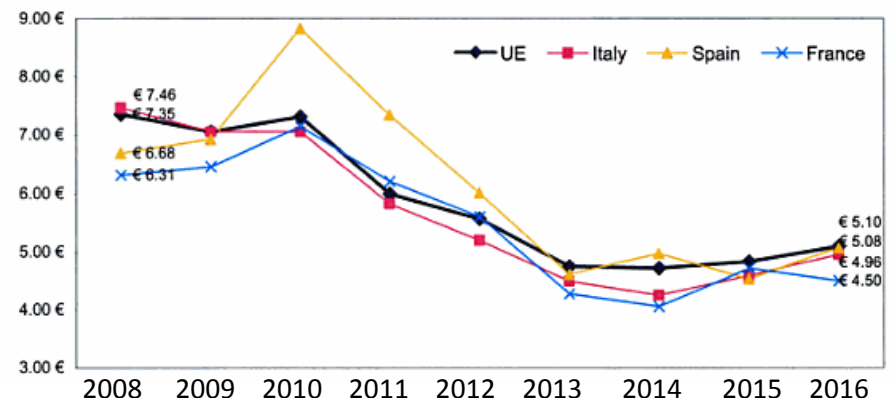
Note eye clarity and body shape



## Aquaculture attributes:

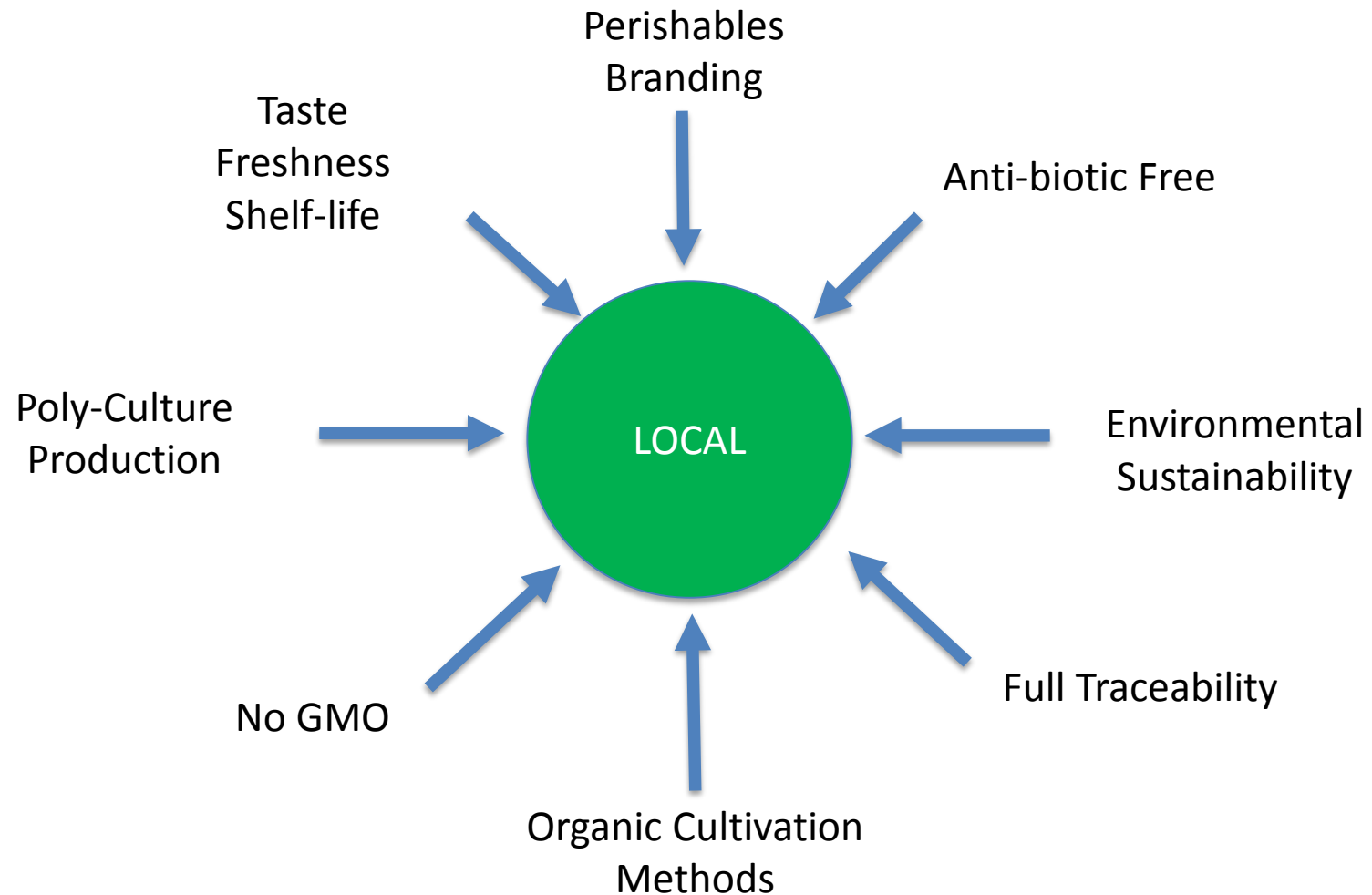
- *Second most farmed marine species after salmon - no stigma to "farmed" product*
- *High demand in "Golden-Triangle" region – growing over 50% per year in US*
- *Local production would provide superior freshness to Mediterranean product*
- *Grow-out period – 13 months (550 grams market size)*
- *Sold as whole fish (grocery channel) – no processing required*
- *RAS compatible - generally well adapted to intensive culture*

## Historical Farm Gate Prices

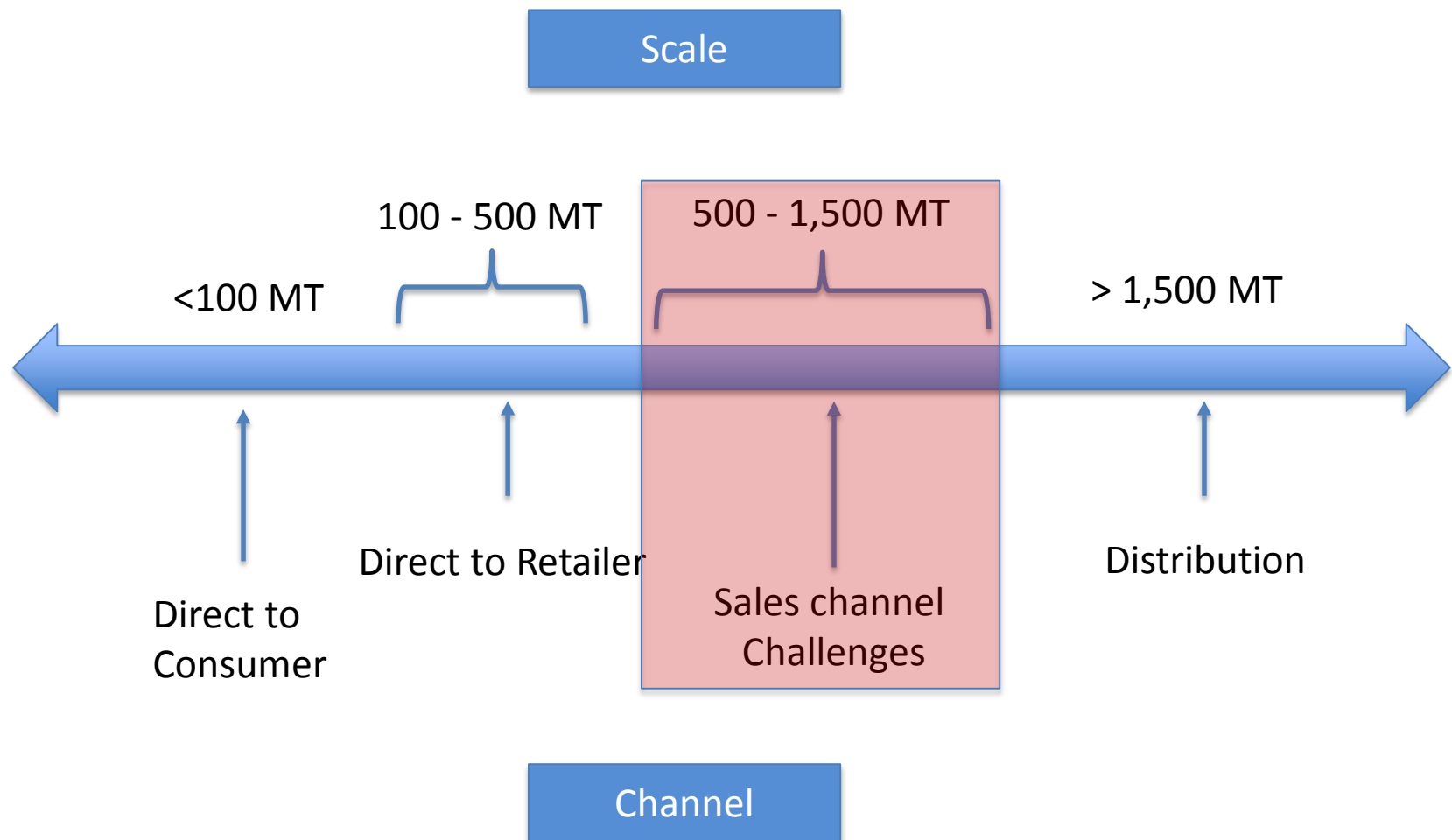




# Paradigm Shift in the Food Industry



# Has Changed the Old Way Of looking at Scale





# Product Differentiation



## Gill Tags

1. **Better, fresher taste than Med product – high accolades from customers**
2. **Significantly greater shelf life**
  - *Shipment to customer within 24 hours of harvest*
3. **Locally sourced – fully traceable / gill tags**
  - *Has supplanted organic in consumers' minds – local embodies organic attributes with accountability*
4. **Environmentally sustainable - RAS waste recovery / reuse (aquaponics)**
5. **No use of prophylactic antibiotics, growth hormones or other chemo-therapeutics**
  - *Focus group study published in 2013 found consumers willing to pay premium for this assurance, but not for sustainability attributes*



# Quality Validation

---



This product is different, and quite honestly the best Branzino I've ever tried. It is succulent, moist and the clean flavor really shines through." ***Barton Seaver, Internationally recognized chef and author***

We thought the Branzino was ABSOLUTELY DELICIOUS! I hope you can sense my enthusiasm! ***Brian Owens, Restaurateur, Crave Fishbar, New York City***

The pure, fresh taste of their Branzino is outstanding. Our customers are sophisticated, traveled and discerning, and their wholehearted approval of this Branzino has been overwhelmingly positive. ***Rick Michener, Head of Seafood Procurement, Kings Food Markets / Balducci's Food Lovers Market***

These are the freshest Branzino available in the USA. The quality of the product is outstanding. ***Keith Moore, Director of Meat & Seafood, Fairway Market***

Only Branzino rated Green "Best Choice" by MBA Seafood Watch



# Branding Strategy



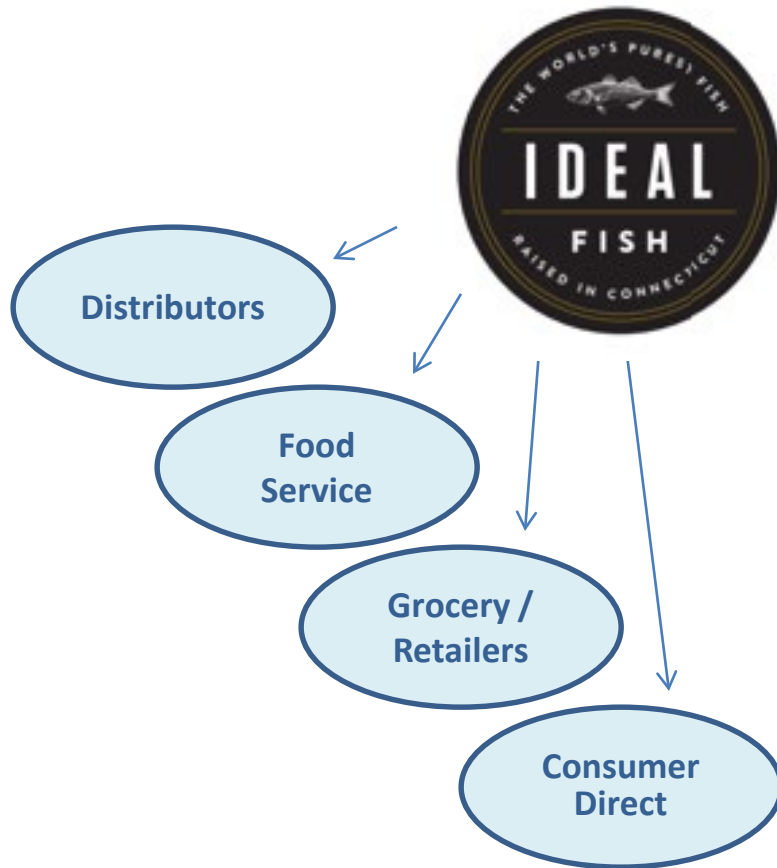
## IDEAL FISH: Cultured to Sustainable Ideals:

### Our Ideals:

1. *Locally produced, community oriented*
2. *Fresher than any other seafood on the market*
3. *Healthy– no additive, antibiotics*
4. *100% traceable – each fish tagged with tracking number, weight and harvest date*
5. *Highest level of environmental sustainability*
  - *RAS waste recovery/reuse*
  - *Aquaponics*



# Ideal Fish Sales Channel Strategy



Focus will be to sell direct to large retailers and utilize distributors for sales outside local market



# And...Not Enough to be Just Local Consumers Want to Know Where Local Is



**A KINGS EXCLUSIVE**  
THE MOST IMPORTANT FISH STORY OF THE YEAR

Originating in the Mediterranean, our Branzino are raised right here in the northeast. These delicious fish from Connecticut are **ULTRA-FRESH** and **PURE**, and delivered to our stores in less than **48 HOURS**.

PURVEYOR SPOTLIGHT

**IDEAL FISH**



Ideal Fish chose Kings as their exclusive retail partner to offer the first harvest of their superbly fresh Branzino. Raised in a **SUSTAINABLE** closed-system aquaculture facility with **NO GMOs, PATHOGENS** or **ANTIBIOTICS**, these fish are healthy, pure and meet the highest standards of quality.

**KINGS**  
WHERE INSPIRATION STRIKES

**LEARN MORE**

Our Kings Farm Unique Prepared Cooking Catering  
Inspiration Brand Fresh Recipes Foods Studio By Kings

▼ My Store



**BRANZINO**  
Born in the Mediterranean.  
Raised in Waterbury, CT.

LOCAL • HORMONE FREE • ANTIBIOTIC FREE • ARTISANAL  
**RAISED IN AMERICA**

# The Local Cluster: Network of RAS Facilities

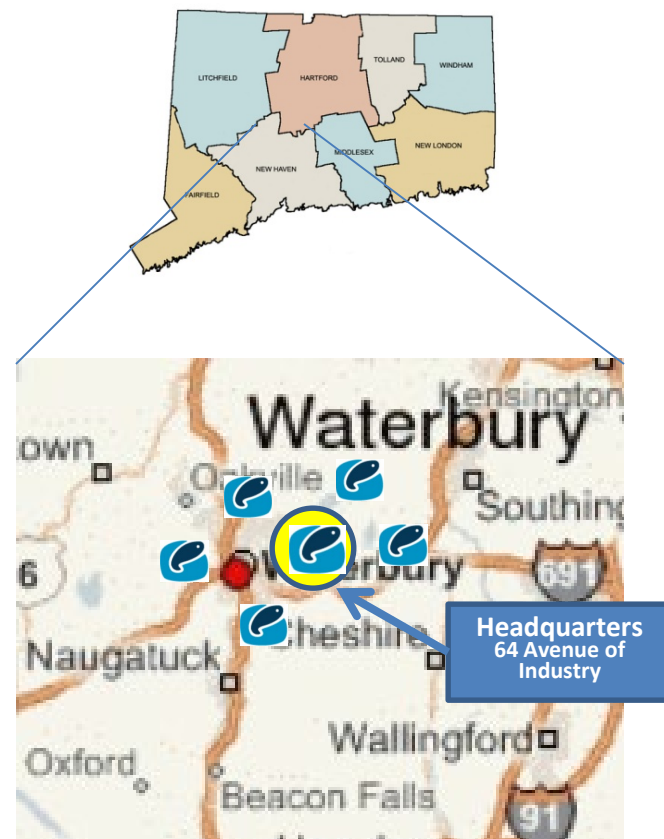


## Establish 4-6 individual RAS facilities within Waterbury metro area

- *Facilities would be managed individually with centralized support services and oversight*
- *Clustered, distributed production provides key risk mitigation while preserving scale economies*
  - ✓ *Centralized input procurement – feed, salt, fingerlings, power, water packaging, spare parts*
  - ✓ *Shared services – distribution operation and vehicles, tech labor, off-hours surveillance, etc.*

## Waterbury area offers a solid platform for a local cluster of RAS facilities

- *5<sup>th</sup> largest city in CT, 9<sup>th</sup> largest in New England*
- *Centrally located to serve markets in CT, NY, MA – connected by interstate highway, rail and 3 international airports (JFK, Logan and Newark)*
- *Formerly the “Brass Capital” of the US – robust industrial infrastructure, including manufacturing buildings/space and protective services*
- *Waterbury water supply known for its purity and plentiful supply*





# Hub and Spoke Management Structure



**Drives Scale Economies While Reducing Production Risk**

Headquarters



Production Facilities

24/7 facility monitoring

Mobile water quality analytics

Veterinarian services

Equipment parts and maintenance

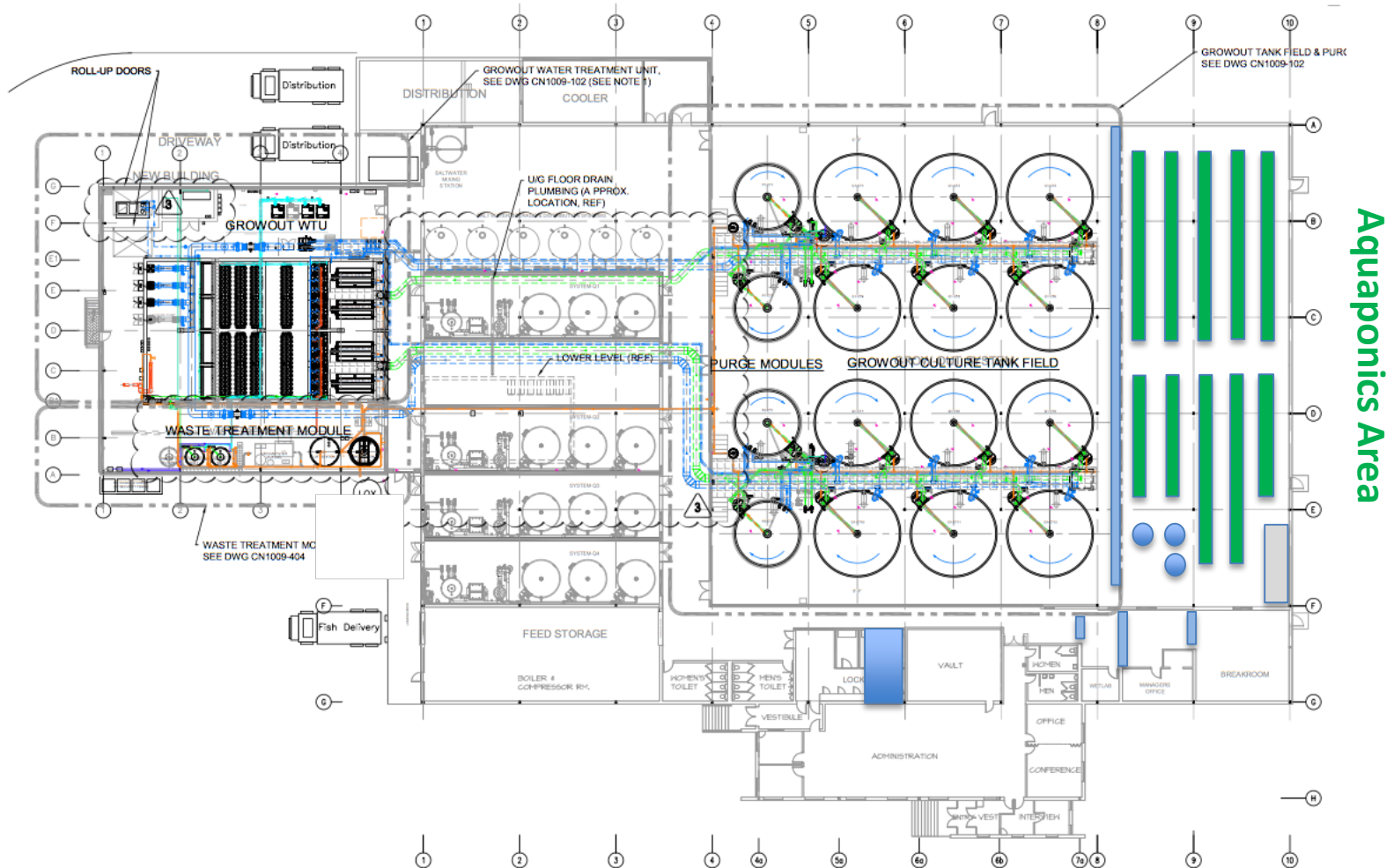
Fish processing services

Flex labor allocation

Centralized procurement



# Pilot Scale Aquaponics

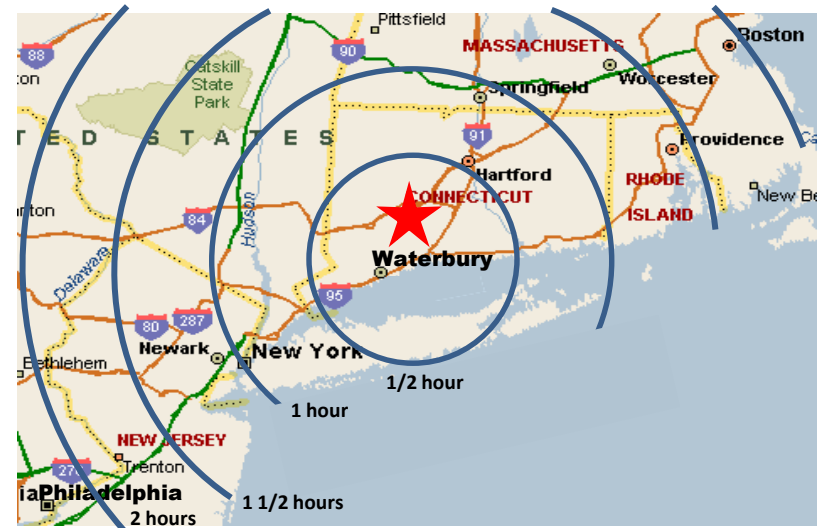


Aquaponics Area

# Waterbury: An Aquaponics Center of Excellence And...a Mecca for Foodies



- 9<sup>TH</sup> largest city in New England in the middle of the most densely populated region of the United State - Northeast
- Located at within 30 minutes of CT's four largest cities and approximately 1 million residents
- Robust industrial infrastructure to support aquaponics vertical farming
- Waterbury water supply known for its purity and plentiful supply



Aquaponics Facility



## Access to highly educated, wealthy households - discerning food consumers in FF County

- *SW CT is highest per capita income in the US*
- *Educated consumers concerned about environment and sustainability*
- **Pervasive farm-to-table / “locavore” mentality**
  - *Established network of over 100 farmers markets*
  - *Restaurants actively promote locally-grown menu items*



# Our “IDEAL” Fish!



