



**THE FARMORY**  
Growing Food, People, Community

An urban fish hatchery and aquaponics demonstration farm that serves the people of Wisconsin.



Our goal is to provide Biosecure year-round fingerlings to farmers  
Promote the industry and to be a resource for those looking to get into aquaculture

# Introduction



- Bachelors Degree: Biology from UWGB in 2017
- Masters Degree: Freshwater Sciences and Technology from UW-Milwaukee in 2019
- Joined The Farmory in January 2020



My master's degree thesis focused on temperature impacts on embryonic and larval development in yellow perch. I was specifically trained on yellow perch aquaculture during my time at UW-Milwaukee.

Hired on at the Farmory to coincide with the 2 system expansion happening

# The Farmory

Our mission is to provide learning opportunities in sustainable agriculture.



**PRODUCE**



**PERCIDS**



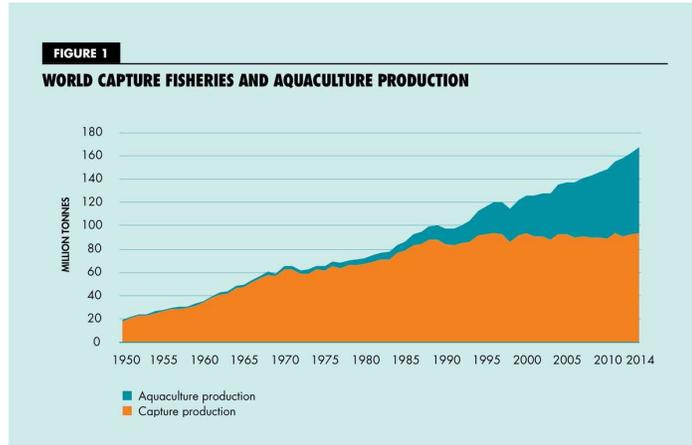
**PROGRAMS**

- Produce: from our aquaponics system
- Percids: represents our fish production; percids is a family of fish consisting of perch, walleye, sauger and darters
- Programs: we offer a number of different programs to educate the community in urban farming

# Why The Farmory?



- Increase in global population
- Shortage of natural fisheries leading to more farmed fish production
- Shortage of fertile soil production and usable land
- Produce travels thousands of mile before reaching the consumer's destination
  - Contributes to fossil fuel pollution



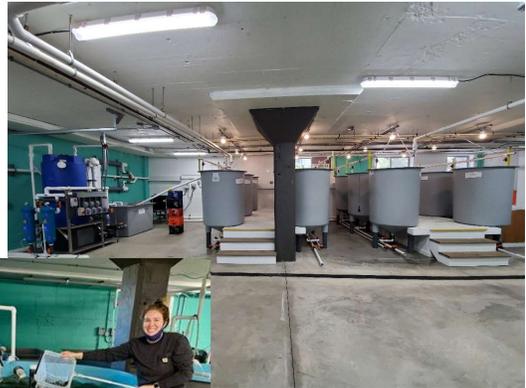
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Why the Farmory is doing this

# Why Recirculating Aquaculture?



- Downtown Green Bay
- Model and demonstrate sustainable aquaculture practices
- Allows for flexibility on location of aquaculture facility
- Need for more inland growers
- Rapidly developing



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Case for RAS systems



Annie The Farm building  
Biosecurity

- Protecting our Product:
- We will be able to detect disease faster
- Improve fish health and management
- Assess volunteer/personnel development
- Great marketing



# Why Percids?



- Species of Choice:
  - Walleye
  - Yellow Perch



Press play

Why Percids?

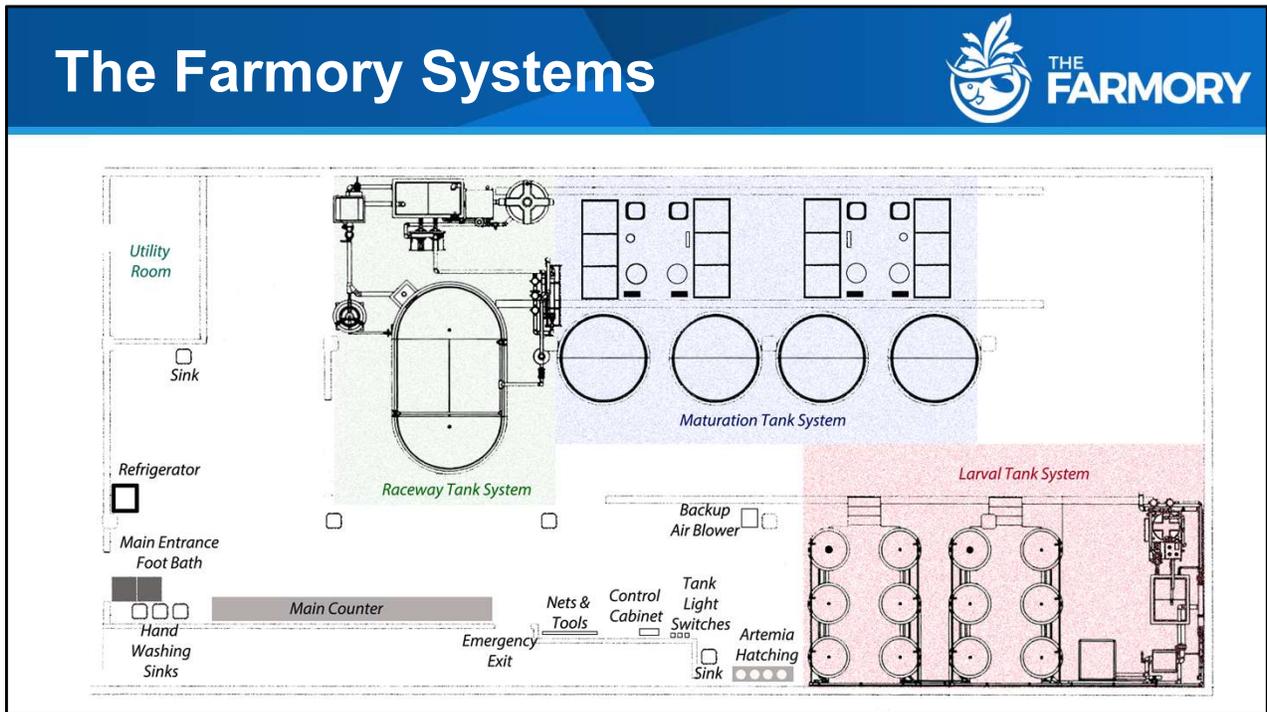
Huge demand for yellow perch and walleye especially in our region – tied into our culture

Wild commercial fisheries for both species is decimated – not able to keep up with demand

A lot of our perch supplies comes frozen from Canada

Yellow perch are difficult to culture – creates a niche market

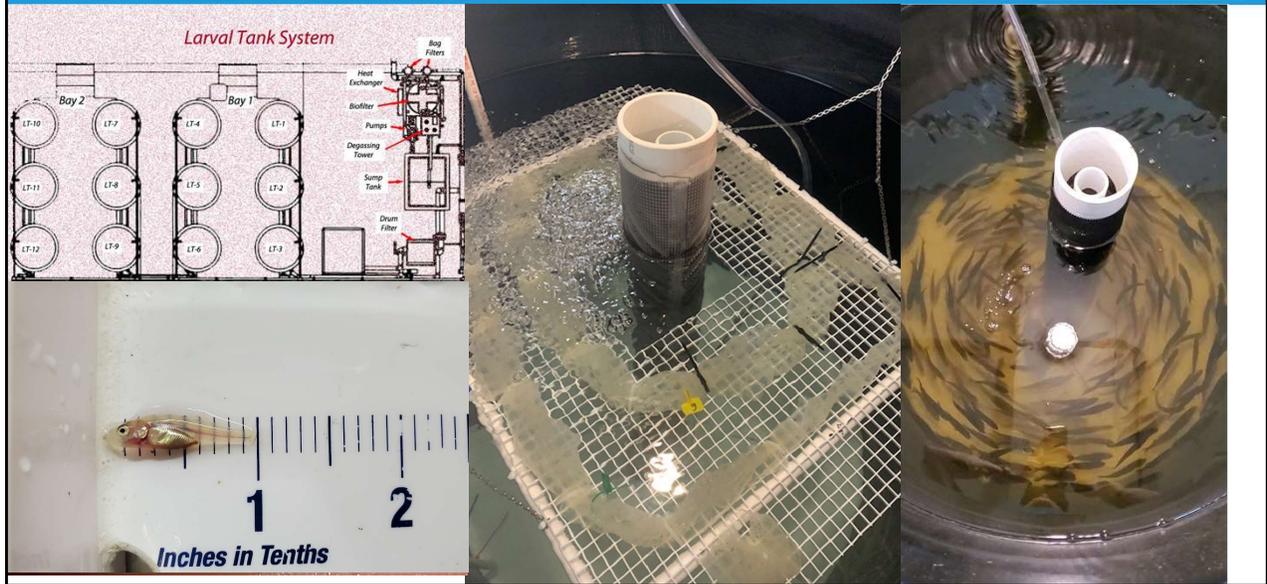
# The Farmory Systems



Obviously, we have the hatchery which is home to about 10,000 gallons of water. We are entering into phase 3 of buildout for the hatchery which will include another raceway, a secondary holding system for our yellow perch fingerlings, and another broodstock tank system. Everything is Recirculating Aquaculture or Aquaponics in our building.

We also are in the process of building out our new Aquaponics Lab which will be the home of the AARP aquaponics system

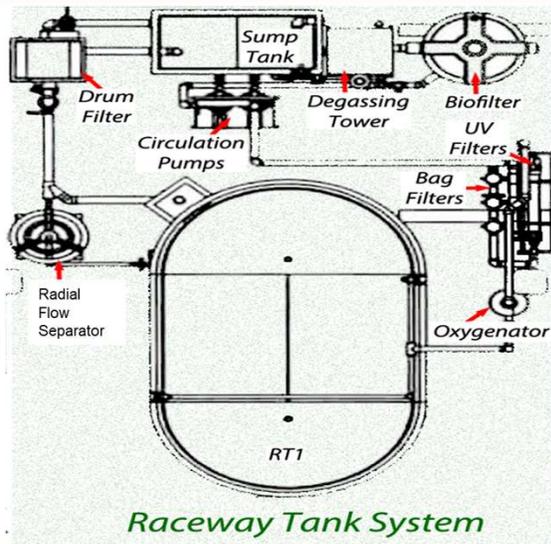
# Larval Rearing System



12 300-gallon tanks  
System total: ~4700 gallons

Used specifically for the intensive larval life stages of fish

# Juvenile Raceway System



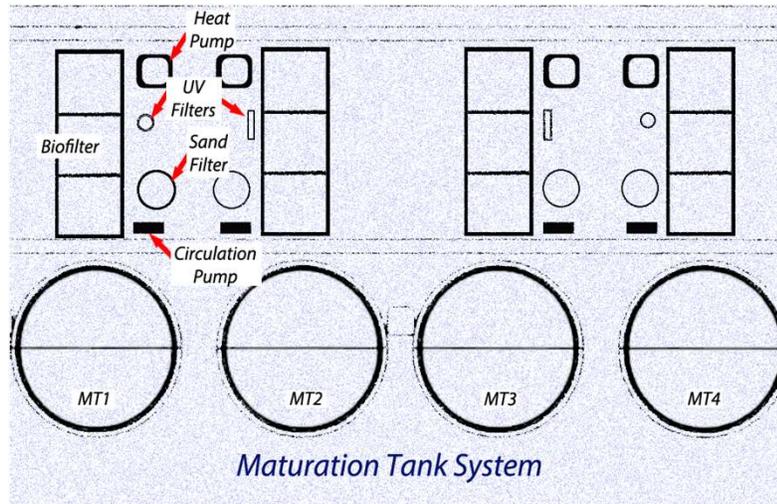
## System Specs:

Tank itself is ~4300 gallons

System total: ~4900 gallons

This is where all our fingerlings/juvenile fish will be held, from this tank they will be sold out to prospective aquaculturists!

# Broodstock Systems



Each maturation tank is its own system

Each system is ~1200 gallons total.

The tanks are 800 gallons.

These are the systems that will house our broodstock (mom and dad) fish for the next 6-7 years. Our yellow perch are now starting to produce eggs and our walleye won't be ready until 2023

# Managing our Water



- The biggest management item for Recirculating Aquaculture
- Big Hitters:
  - Feed
  - Poop
  - System Maintenance



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Aside from feeding fish and managing those, the biggest thing we manage and take care of is our water.

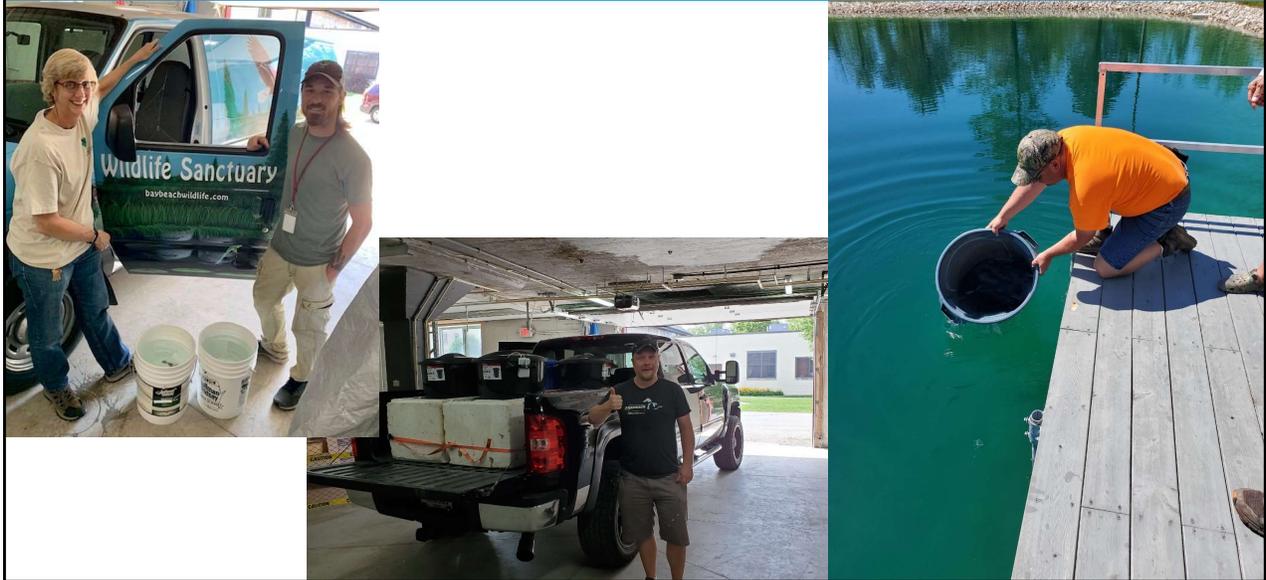
# Feed Training Fish

- Process in which you expose and manipulate feeding amounts so larval fish eat non-live feed
- When do you start to introduce powdered feed?



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Feed training – yes even the walleye!

# Where do our fish go?



Customers

Indoor grow-out facilities

Working on sparking larger scale grow-out operations

# Getting Involved



- **Volunteers**

- 2020
- 120 total volunteers
  - 2,700 Hours
  - Avg 22 Hours
  - \$73,000



Explain how volunteerism is the backbone of our hatchery

# FARMORYWORKS

- Aquaculture Technician
- 12-week program
- Scholarships + Stipends available
- Runs every Spring and Fall



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Fueling the industry through programming  
NEW SLIDE with other programs

# FARMORYWORKS

- Aquaculture Entrepreneur
- 7-week program
- Scholarships + Stipends available
- Runs every Spring



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Aquaponics Program

COMING SOON TO

**FARMORYWORKS**

IN FALL 2022

Greater Green Bay Community Foundation

United Way  
Brown County United Way

Associated Bank

THE FARMORY

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Will be launched in Fall 2022 in our brand new system and lab

# FARMORYWORKS

## K-14 Outreach

- The Farmory Virtual Experience – Middle School Career & Tech Ed
- Field Trip Kits
- Internships



## Community Education Workshops



## The Farmory - Our Vision



**The premier source for bio-secure, year-round, fresh-water food finfish fingerlings.**



**A hub for agriculture education and aquaculture industry development.**



**A year-round local produce source.**



Both/Questions