

# BIG NEWSLETTER

SPRING 2024



## TOP NEWS

- AQUAPONICS GREENHOUSE SET-UP HAS OFFICIALLY BEGUN!
- CONFERENCES AND POSTER SESSIONS ATTENDED
- PUBLISHED WORKS
- WEBSITE OFFICIALLY LAUNCHED!
- NEW MEMBERS WELCOMED TO THE TEAM!

## ABOUT WHEN BLUE IS GREEN (BIG)

The big project is a 5-year USDA funded Purdue lead research project that focuses on sustainable agricultural systems. Our goal is to increase local and regional production of adequate, nutritious, and affordable sea foods with a minimal environmental footprint to ultimately diversify US agricultural systems and dietary patterns.



FOLLOW US!!



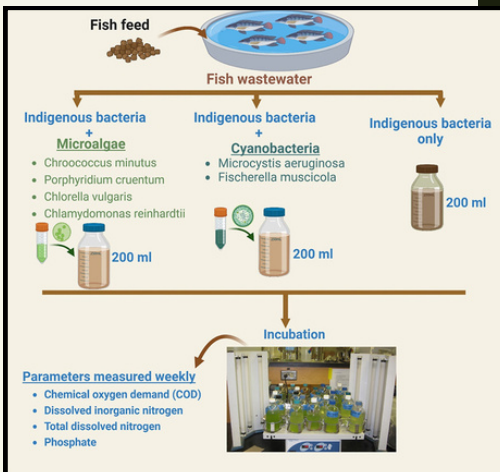
# BIG PUBLISHED WORKS

## LIFE CYCLE ASSESSMENT ON MARINE AQUAPONIC PRODUCTION OF SHRIMP, RED ORACHE, MINUTINA AND OKAHAJIKI

While current aquaponics systems are commonly operated with freshwater, marine aquaponics is an emerging opportunity to grow saltwater animals and plants. Although marine aquaponics can reduce the dependence on freshwater for food production, its environmental sustainability has not been systematically studied. This paper presents the first life cycle assessment (LCA) on a marine aquaponic production system... **Read the full abstract and article here!**

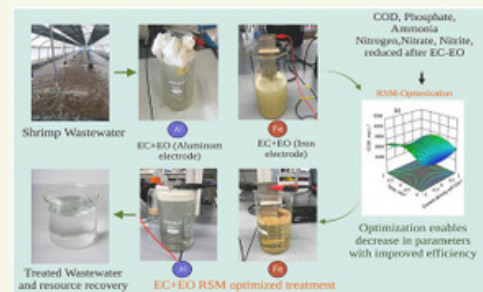
## BIODEGRADABILITY AND BIOAVAILABILITY OF DISSOLVED SUBSTANCES IN AQUACULTURE

This study aims to understand the nutrient composition of fish wastewater and the use of indigenous bacteria, cyanobacteria, and microalgae as an alternative biological treatment method. **Read the full article!**



## ELECTROCHEMICAL TREATMENT OF WASTEWATER

This past year Pankaj Bhatt was the lead researcher on electrochemical treatment of aquaculture waste water. In this study shrimp wastewater was used with the combined methods of electrocoagulation (EC) and electrooxidation (EO). **Read more about the findings here!**



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## BiG

Aquaponics intensively produces a diverse array of nutritious blue foods and specialty crops, but this emerging food production system faces intertwined technical, economic, and environmental challenges that are...

Purdue University

CHECK-OUT OUR [NEW WEBSITE!](#)

## POSTER SESSIONS AND CONFERENCES

This past year our team has presented at eight conferences! Most notably our team attended the ASABE International Meeting as well as the 2023 Aquaponics Association Conference. We are excited to continue to take part in our community this year and share our progress!



## THE GREEN HOUSE!

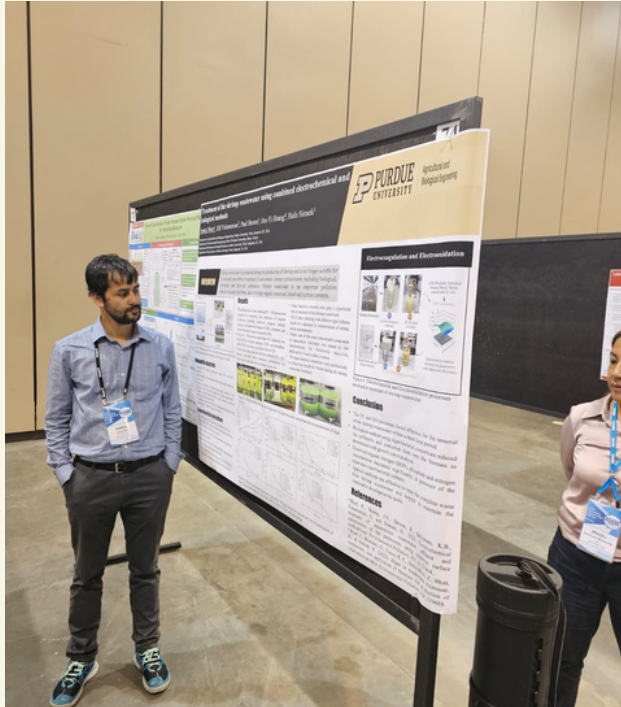
Dr. Paul Brown's Lab has been working to set up our greenhouse space for our experimental aquaponics system. We are happy to announce we officially have six systems fully assembled and running water. In the coming months we will be planting lettuce and introducing the tilapia.



## OUR TEAM GROWTH!

This year our team has grown to 35 members! We are happy to welcome three new graduate students and post docs at the beginning of this year.

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## ONGOING RESEARCH

Our team is continuing to conduct research in agricultural economics, algae, anaerobic digestion, aquaponics, and so much more. I hope that you continue to follow along!



## AQUAPONICS DEMONSTRATION UNIT

We are putting together a smaller scale demonstration unit of our aquaponics system. This small scale unit will provide instructional assistance with teaching workshops. This demo will be great for visitors and the entire process will be filmed and put out on our social media!



## SPRING FEST 2024!

Purdue Spring Fest is just around the corner and we hope to see you there! We are going to be showing our demonstration unit and pilot scale green house! We will be at Purdue University NLSN Hall Saturday April 13th from 10am-5pm. [See more information here](#)