

Letter from the Director

Aloha All,

As we prepare to welcome summer, the team at CTSA is excited for a productive season focused on developing our annual Plan of Work and monitoring our ongoing projects through bi-annual reporting and project update conference calls. The FY22 development cycle is now in full swing. Pre-proposals are due to CTSA this Friday June 3. Per our standard procedure, we will hold an adhoc committee meeting in June to discuss the technical merit of each pre-proposal ahead of the IAC / TC meeting in July. We are looking forward to receiving your pre-proposals and developing a Plan of Work that meets our regional industry needs and contributes to the growth of U.S. aquaculture.



The importance of seafood continues to grow across the world. As of 2021, seafood is the most globally traded animal protein, with a trade value of USD 164 billion (EUR 155.8 billion). The U.S. imports approximately 90% of the seafood we consume. If we are going to achieve food security, we must increase our domestic aquaculture production. At the same time, we need to ensure that we sustainably meet environmental and food safety standards. I am pleased to see the worldwide effort to upgrade aquaculture standards including the recently released sixth version of the Global G.A.P. (Good Aquaculture Practices). The G.A.P. program is the international standard in certification of sustainable practices in agriculture and aquaculture, and the most recent version emphasizes the integration of innovative technological advances. I was also pleased to attend the “Aquaculture Community & Pitch Day” event on May 13th at NELHA in Hawaii, which featured new findings and technologies from farm management to product quality assessment. CTSA and our stakeholders agree that new technologies are essential to the progress of aquaculture - one of the top industry-identified priority areas for our FY22 development is ‘Innovations in Aquaculture Technology.’ I am excited to see what pre-proposals are submitted under this and other priority areas.

In addition to our own program development this summer, CTSA is excited to see an increase in regional aquaculture activities including the University of Hawaii Sea Grant program’s “Hawaii Aquaculture Collaborative.” Also, the Hawaii Agriculture Foundation is holding an aquaculture-focused seafood event as part of its ‘Eat, Think and Drink’ event series. “[What’s the Catch? Cultivating Hawaii’s Seafood Future](#)” will take place on June 15 at Ward Theaters and will include an aquaculture film screening and keynote address from Dick Jones, CEO of Blue Ocean Mariculture. I am hopeful that this public event will attract community attention to the importance of supporting local aquaculture farming to secure our seafood future.

As always, I welcome and encourage your thoughts and suggestions on the best ways for us to collaboratively move our regional aquaculture industry forward.

Mahalo,
Dr. Cheng-Sheng Lee
Executive Director, CTSA

Reminder: CTSA FY22 Pre-Proposals due this Friday!

The CTSA [FY2022 Request for Pre-Proposals](#) was released in last month’s issue of e-Notes. The Request lists the top priority areas and species as identified by industry stakeholders in Hawaii and the U.S. Affiliated Pacific Islands, as well as instructions for submitting a pre-proposal by the deadline of 5pm HST on **Friday, June 3**. As of last year, CTSA is using a standard form for all pre-proposal submissions. Pre-proposal forms can be downloaded on the CTSA website or via request to

Pre-proposals received by the deadline will be reviewed by CTSA's Industry Advisory Council (IAC) and Technical Committee (TC). Pre-proposals that receive a majority of votes will move forward with requests for a full proposal.

CTSA's mission is to support aquaculture research, development, demonstration, and extension education in order to enhance viable and profitable aquaculture in the United States. Our main focus is on funding projects that will have immediate, positive impacts on the regional aquaculture industry. FY 2022 Strategic Areas & Priority Species include Innovations in Aquaculture Technology, Finfish Farming Technology, Macroalgae/ Microalgae, Aquatic Animal Health, Hawaiian Fishponds, Aquatic Feed Development, and...[Read More](#)



FY 2022 Request for Pre-Proposals

Regional Research, Demonstration and Extension Projects

Aquaculture Announcements

[Website for 2022 National Aquaculture Extension Conference](#)

As we have been sharing in recent months, the RAC program is gearing up to support the upcoming National Aquaculture Extension Conference in Maine. The [website](#) for the conference is open for view: <https://seagrant.umaine.edu/extension/national-aquaculture-extension-conference/>. If you are from the CTSA region and have an interest in attending the conference, please contact CTSA (mbrooks@ctsa.org).

Funding and support for the conference: USDA - Regional Aquaculture Centers USDA - National Institute of Food and Agriculture (NIFA), NOAA, National Sea Grant College Program, Maine Sea Grant, Kentucky State University, University of Maine Cooperative Extension.

[University of Arizona Announces Shrimp Pathology Short Course for June 2022](#)

The Aquaculture Pathology Laboratory, University of Arizona (UA), is pleased to announce that they will return to an in-person format for this year's short course on 'Disease Diagnosis and Control in Shrimp Culture' (June 13-June 18). Lectures, Labs and Demonstrations will be presented by Staff from the Aquaculture Pathology Laboratory. Space is limited, so register [here](#) today! View this year's flyer [here](#) and program description [here](#).

[NOAA Releases Fisheries Equity and Environmental Justice Strategy](#)

NOAA Fisheries has released the first draft of its [Equity and Environmental Justice Strategy](#). The strategy is open for public comment through August 19. NOAA wants to hear what stakeholders think and is holding a series of webinars listed on their [website](#). This draft national strategy describes the path that NOAA Fisheries will take to incorporate equity and environmental justice into the vital services we provide to all stakeholders. NOAA goals under the strategy are: (1) prioritize identification, equitable treatment, and meaningful involvement of underserved communities; (2) provide equitable delivery of services; and (3) prioritize equity and environmental justice in our mandated and mission work.

[Reminder: Sign Up For 2022 Census of Aquaculture](#)

The 2022 Census of Agriculture is right around the corner and USDA NASS is making every effort to count all aquaculture producers in the United States. If you produce any aquaculture products and want to make sure that you are counted in the 2022 Census of Agriculture and the 2023 Census of Aquaculture, please sign up your operation using this online form: <https://www.agcounts.usda.gov/cgi-bin/counts/>. Once you have signed up, you might receive a short survey in the next two years to further categorize your operation. Most likely, you will not receive a survey until the 2022 Census of Agriculture in January or February, 2023

[Disease Testing Requirements for Live Aquatic Animal Exports to the EU](#)

The US Department of Agriculture, Animal Plant Health Inspection Services (APHIS), Veterinary Services (VS) has become aware of disease testing inconsistencies related to live aquatic animal exports from the United States to the European Union (EU). The NAA released the following notice to provide clarification on the EU disease testing requirements for all live aquatic animal exports.

The EU requires aquatic animal species listed in the [Commission Implementing Regulation \(EU\) 2018/1882](#) to originate from a country, territory, zone or compartment which has been declared free from the relevant listed diseases outlined in the [aquatic animal export health certificate](#). The EU communicated to APHIS that testing only the cohort to be exported (i.e., test and ship) does not meet EU disease testing

requirements. Therefore, effective immediately, facilities exporting species susceptible to diseases listed in the [Commission Implementing Regulation \(EU\) 2018/1882](#), must achieve and maintain premises freedom status for each disease of concern prior to export. Please note for crustacean exports to the EU, premises freedom status is required for all diseases of concern, regardless of the intended use; this includes crustaceans exported as ornamental species.

NAA encourage all facility owners, operators, and accredited veterinarians to review the document entitled "[Criteria for Establishing Premises Freedom for Pathogens of Concern in Aquaculture Settings](#)." This document outlines the steps and sampling requirements to establish and maintain premises freedom for a given disease of concern. Prior to future exports to the EU, facility owners must submit their sampling data to APHIS for review. Once APHIS confirms the facility meets premises freedom, exports to the EU may resume. Please note, this clarification does not apply to the export market for live bivalve mollusks intended for human consumption, which does not require testing prior to export from the United States to the EU.

APHIS is committed to working with all facilities affected as they understand the significant impact this updated guidance may have on current and future exports to the EU. For any questions and to submit your facility's sampling data for review, please email vsaquaculturehealth@usda.gov.

AquaClip: Hawaii startup cultivates seaweed to cut cows' impact on climate

A Hawaii-based startup company is working to tackle climate change with tiny but mighty seaweed. By feeding cows, sheep and other farm animals a natural seaweed-based supplement grown sustainably in state, Symbrosia in Kailua-Kona hopes to improve digestion and reduce livestock methane emissions, which are responsible for 10 percent of total greenhouse gases. It's now eyeing trials at ranches across the state this summer, including on Maui.

Researchers and climate change advocates have long mulled how to reduce agriculture's impact on the environment, with some turning their attention to cattle diets. Researchers at the University of California, Davis, recently found that using seaweed in beef cattle's diets could reduce their methane emissions as much as 82 percent. The drawback, the researchers said, was that there isn't enough in the wild for broad application.

That's what makes Symbrosia's approach unique — it doesn't require large-scale harvesting, only a few cells that they can grow via aquaculture at a facility. While in its early stages, the trials are promising. The main acting ingredient in Symbrosia's supplement SeaGraze involves the natural compound found in the seaweed, called bromoform, which blocks the hydrogen from the carbon, reducing methanogens naturally through improved digestion.

"Continued research and feed trials have shown that the methane reductions hold up and using the supplement does not have any adverse effects on animal health or the products expected from these animals," Stock said. To date, the "miracle seaweed" supplement has reduced over four tons of CO₂-equivalent during trials on the Mainland.

Focusing on land-based, zero-waste cultivation using sun and seawater, the Symbrosia team is currently expanding sustainable production at its facility in Kailua-Kona on Hawaii island and plans to have upcoming feed trials this summer at ranches statewide. Sampling does not require plant removal. To start seed stocks on a larger scale, the team only needs a few cells of seaweed, she said.

Source: The Maui News // [Full Article](#)

This newsletter is written and prepared by the CTSA Information Specialist Meredith Brooks.

The Center for Tropical and Subtropical Aquaculture (CTSA) is one of five regional aquaculture centers in the United States established and funded by the U.S. Department of Agriculture's National Institute of Food and Agriculture (NIFA) under active grants 2016-38500-25751, 2018-38500-28886, and 2020-38500-32559. The regional aquaculture centers integrate individual and institutional expertise and resources in support of commercial aquaculture development. CTSA was established in 1986 and is jointly administered by the University of Hawaii and the Oceanic Institute of Hawaii Pacific University.