CENTER FOR TROPICAL AND SUBTROPICAL AQUACULTURE

Regional e-Notes ~ April 2026 ~ Volume 18, Issue 4

Letter from the Director

Aloha,

I would like to start this letter by expressing our care for our colleagues and friends in Guam and the Mariana Islands following the recent super typhoon Sinlaku. We know storms like this are disruptive and unsettling, and you are in our thoughts. As powerful storms become more frequent across our region, CTSA remains committed to supporting island resilience through sustainable aquaculture and regional collaboration however we can.

Supporting our region starts with listening, and on that front, CTSA sincerely appreciates everyone who took the time to complete our priority areas survey. Your responses directly shape how CTSA invests in regional aquaculture development, and we do not take your recommendations lightly. We have worked to incorporate as much of your feedback as possible; while some ideas may not have received broad regional endorsement, those supported by thoughtful rationale have been included in our "other" category, because good ideas deserve a place in the conversation. As I often express in these letters, CTSA is fundamentally industry and regionally-driven. If you don't share the challenges you are facing or the solutions you need, we may not know they are priorities. Funding decisions are not made unilaterally; they are shaped by stakeholders like you.

On the topic of regional representation, I want to be clear that our Industry Advisory Council (IAC) and Technical Committee (TC) deeply value aquaculture development and extension work across the U.S. affiliated Pacific Islands, and they recognize the tremendous opportunity the region holds. We have noted interest from Western Pacific stakeholders in greater participation within our governance structure, and we welcome it. Both the IAC and TC have capacity for additional membership, and we encourage qualified industry representatives from the Western Pacific to put their names forward for consideration. To further support broad participation, our annual IAC/TC meeting has been transitioned to a hybrid format. I also want to acknowledge that we have made a deliberate effort to direct 30% or more of our annual grant funding toward projects in the Western Pacific islands. In some cycles, proposals have not advanced to completion --whether due to principal investigators stepping back or submissions requiring further development to align with USDA quality standards-- but our commitment to the region remains firm. Strengthening aquaculture across all of our islands requires mutual trust and sustained partnership on both sides, and we remain ready to work toward that together.

As Earth Month draws to a close, food security is very much on my mind. I was pleased to see USDA announce the creation of its Office of Seafood earlier this month, a milestone that reflects growing federal recognition of domestic seafood production as a national priority. The new office will coordinate across USDA agencies to better integrate fishermen and aquaculture producers into federal programs, and work alongside the Department of Commerce to revitalize the American seafood industry. This builds on themes I raised last month regarding dietary guidelines and growing seafood demand, and I hope it moves us closer to seafood that is more affordable, safe, and domestically produced. According to the Food Marketing Institute, 40% of Americans do not regularly consume seafood, with cost cited as a leading barrier; this is precisely the challenge CTSA and the Regional Aquaculture Centers work to address every day. By supporting farmers to increase production at accessible price points, we aim to ensure that nutritious, U.S.-produced seafood reaches more families across our region and beyond. To this end, we are excited to release the FY26 Request for Pre-Proposals (below), and are looking forward to receiving proposals that will help our region achieve this goal.

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

CTSA FY2026 Request for Pre-Proposals - Due June 8!

CTSA is pleased to release the **FY26 Request for Pre-Proposals**. 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 Monday, June 8. CTSA uses a standard form for all pre-proposal submissions. Pre-proposal forms can be downloaded on the **CTSA website** or via request to mbrooks@ctsa.org.

FY 2026 Request for Pre-Proposals

Regional Research, Demonstration and Extension Projects

Pre-proposals received by the deadline will be reviewed by CTSA's Industry Advisory Council (IAC) and Technical Committee (TC). Pre-proposals that receive significant support 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 2026 Priority Species include: **seaweeds, oysters, moi, shrimp, and tilapia for Hawaii,** and **sea cucumber, rabbitfish, and mangrove crabs for the U.S. Affiliated Pacific Islands**. Strategic Priority Areas include Innovations in Aquaculture Technology, Aquatic Feed Development, Finfish Farming Technology, Aquatic Animal Health, Hawaiian Fishponds, and others. As a reminder, eligible applicants include universities, community colleges, or nonprofit research institutions and organizations from the CTSA region. Since 2024, commercial companies collaborating with eligible applicants in the region are eligible to serve as the prime contractor for a project pending USDA approval.

Doing More with What We Have: Aquaculture, Resource Efficiency, and Food Security in the Pacific

April is recognized nationally as Earth Month, an occasion to consider how communities use the natural resources available to them. For Hawai‘i and the U.S. Affiliated Pacific Islands (USAPI), that question has particular relevance. The region has some of the most productive ocean waters in the world, yet is constrained by limited arable land and freshwater supplies. These conditions make resource efficiency not simply a practical value but an economic necessity, particularly when it comes to food production.

Hawai‘i imports approximately 90 percent of its food and maintains only a 5 to 7-day supply on hand at any given time. This level of import dependence leaves the state’s food supply vulnerable to shipping disruptions, global commodity price swings, and supply chain failures. Building a stronger domestic food production capacity is a recognized priority, and aquaculture is one of the most promising pathways available given the region’s marine resources and the global growth of the seafood sector. Sustainably managed aquaculture is among the most resource-efficient methods of producing high-quality protein, requiring comparatively little land or freshwater while drawing on the productivity of local waters.

The range of species and systems suitable for aquaculture development in the region is broad. Finfish and shellfish production represent viable opportunities, and each presents distinct advantages depending on location, infrastructure, and market. Algae cultivation is among the most promising areas of emerging interest. Certain seaweeds can be grown directly for human consumption, offering a nutritious and locally produced food source. Algae also serve as a valuable feed ingredient, with applications across multiple aquaculture species. Because algae cultivation requires no freshwater and can be integrated into existing marine or land-based systems, it is particularly well suited to the resource constraints of island communities and represents an efficient use of the region’s most abundant asset: the ocean itself.

Despite this potential, aquaculture development in the region faces meaningful barriers. Feed is typically the largest single operating cost for aquaculture producers, often accounting for more than half of total production expenses. Local producers are almost entirely dependent on imported commercial feeds, which carry the added cost of freight and exposure to the same supply chain risks that affect the broader food system. Reducing that dependence is one of the most direct ways to improve the economic viability of local aquaculture and accelerate its growth.

A Circular Economy Approach to Regional Aquaculture

One approach with significant economic promise involves applying circular economy principles to the region's existing seafood industry. Hawai'i's commercial fishing and seafood processing operations generate substantial volumes of byproduct material, including trimmings and other high-protein organic matter, that currently retain limited economic value. Historically, efforts to recover value from these nutrient streams have focused primarily on fertilizer production. However, a more economically significant opportunity exists in converting those materials into feed ingredients for use in aquaculture production. Such an approach would allow nutrient value to be recaptured and redeployed within the local food system, effectively using one part of the seafood sector to strengthen another.

CTSA is currently funding research that tests this model in practice. Diamond Head Seafoods, a Honolulu-based seafood processing company, is leading a project to develop a feed manufacturing process that converts fish processing waste into locally produced fishmeal for use in aquaculture feeds. As the project's Principal Investigator described in congressional testimony earlier this year, the effort is "not simply a waste management solution; it is an effort to capture the full value of the nutrient streams generated by our commercial fishery and put them back to work feeding Hawai'i's communities." The research includes grow-out feeding trials with marine shrimp. By comparing locally produced feed against imported alternatives, the project will generate the performance data needed to assess whether a locally produced fishmeal can match or approach the results of imported feeds at a lower delivered cost. The testimony noted that "a competitively priced, locally produced feed could meaningfully lower the barriers to aquaculture expansion across the islands."

While a complete local feed solution remains a distant goal, the economic implications of even a local protein ingredient supply extend well beyond any single project. A locally produced protein ingredient would lower costs for producers across the islands, reduce the industry's dependence on foreign suppliers, and keep more production dollars circulating within the regional economy. Though not all ingredients are available locally, producing affordable feed by importing only low-cost components and sourcing as much as possible from within the region represents a realistic and meaningful step forward. The additional benefits of utilizing fish processing byproducts extend further still, with implications for waste reduction, resource recovery, and broader ecosystem health. As the testimony stated, "converting fish waste into high-protein fishmeal rather than sending it to landfill represents a significant economic opportunity that stretches every dollar of our local fishery resources further and strengthens the self-sufficiency of Hawai'i's food system and economy." More broadly, this approach reflects a principle that applies across the region's aquaculture sector: in an island economy where inputs are costly and resources are finite, maximizing the value of what is already available is both sound business practice and sound policy.

Research of this kind is made possible through CTSA and the USDA's Regional Aquaculture Center (RAC) program, which provides the applied, regionally focused research infrastructure necessary to evaluate promising practices before they are ready for commercial adoption. As the DHS testimony noted, the RAC program offers "the kind of applied, regionally relevant research infrastructure that no single company or institution could build alone, and their work is foundational to the long-term health of our industry." By investing in this work, the program helps translate practical ideas into industry-ready knowledge, supporting the long-term development of a more self-reliant and economically resilient aquaculture sector across Hawai'i and the USAPI. This Earth Month, that kind of applied, resourceful thinking represents exactly the direction the region's food system needs to grow.

Regional Aquaculture Announcements

USDA Resources for Aquaculture

Join USDA Farm Service Agency (FSA) for an informational session on available programs for aquaculture producers. Learn about eligibility requirements and how to apply for program services and FSA loans, including disaster relief:
https://www.fsa.usda.gov/resources/disaster-recovery/emergency-assistance-livestock-honeybees-farm-raised-fish-elap
https://www.fsa.usda.gov/resources/disaster-recovery/emergency-conservation-program-ecp
Speakers: Jennifer Balderas, Farm Loan Program Manager & Kristen Kiriu, Farm Programs Chief
Join Zoom Meeting
https://hawaii.zoom.us/j/87492165621
Meeting ID: 874 9216 5621

2026 Grau Fellowship - Applications Due May 13, 2026

Applications are now being accepted for the 2026 E. Gordon Grau Coastal and Marine Resource Management and Policy Fellowship Program (Grau Fellowship). This is a call for applications for a two year Grau Fellowship based in Honolulu from September 1, 2026 to August 31, 2028. This year Sea Grant is collaborating with six different organizations to host up to eight Grau Fellows. Host offices for the 2026 Grau Fellows are:

- Hawai'i Division of Aquatic Resources
- Honolulu Office of Climate Change, Sustainability and Resiliency

- NOAA Office of National Marine Sanctuaries
- NOAA Pacific Islands Fisheries Science Center
- Waikiki Beach Special Improvement District Association
- Wastewater Alternatives and Innovations

Eligibility

- Graduate students completing their degrees (Masters, Ph.D., or J.D) in Hawai'i between August 1, 2024 and August 31, 2026
- Graduate students from Hawai'i (graduated from a high school in Hawai'i) completing degrees outside Hawai'i (e.g., California) between August 1, 2024 and August 31, 2026
- Students in fields related to conservation, marine resource management, public policy, planning, and/or law of marine and coastal resources are eligible and encouraged to apply
- Fellows must complete all degree requirements before starting the fellowship on September 1, 2026
- This fellowship is open to U.S. citizens and nationals

Applications are due May 13, 2026 via eSeaGrant and the chosen 2026 Grau Fellows will receive a $66,000/year stipend for the fellowship. Click here to learn more.

AquaClip: In Hawaii, innovation is transforming fish farming

At Hawaii Calls restaurant, father-and-son chefs Jayson and Ocean Kanekoa take pride in procuring food from local farms on Hawaii's Big Island — the Hamakua mushrooms, salad greens and of course, pork and pineapple for Hawaiian pizza. And today, the farm-to-table meal features locally farmed fish, too — Hawaiian Kanpachi, or longfin yellowtail, a fish native to the islands that is responsibly raised on an innovative fish farm just a quarter mile offshore, in the clear, calm waters off Hawaii's Kona coast.

"These days it's so uncertain with getting fish," Jayson Kanekoa explains. "But I know I can always lean on the farm to get Kanpachi. It's there for me all year round."

More than 90% of all fish consumed in the U.S. is imported, and half of those imports are farmed, mostly in countries that lack strong environmental protections. In Hawaii, chefs like the Kanekoas, alongside farmers, scientists and entrepreneurs, are showing what's possible when traditional aquaculture knowledge meets modern technology: a new, sustainable source of seafood, made in the U.S.A.

With the global population expected to swell to 10 billion by 2050, the demand for food, especially protein, will rapidly rise with it. More than 3 billion people already rely on seafood as their main source of protein. With climate change and overfishing leading to teetering wild fish populations, aquaculture — farming seafood — can provide much needed food security.

Aquaculture is the fastest-growing food production system in the world, but it has yet to take off in the United States. While consumers relish oysters farmed in coastal waters, and seaweed farming is surging in both popularity and profitability, larger-scale finfish farming continues to carry a bad reputation.

"The main thing that has been limiting the growth of aquaculture in the United States is the perception," says Gavin Key, COO of Ocean Era, a Kona-based aquaculture research company. "There is a lot of misunderstanding about the potential impacts and, frankly, some justified concern about the way things used to be. When these industries first started operating, they didn't know everything we know now."

Public skepticism stems from historical issues with pollution from fish farms, escaped farmed fish interacting with wild fish, and the depletion of wild fish used as feed for farmed fish.

These are legitimate concerns, but not insurmountable, say advocates, including the global nonprofit Environmental Defense Fund. "We have an opportunity to follow the science and understand what responsible aquaculture can deliver for our food security and climate resilience — and to grow seafood here in a way that's environmentally sound and built to last," says EDF's Maddie Voorhees, who directs the organization's U.S. aquaculture campaign...read the full article.

Source: EDF Vital Signs // 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 2022-38500-38099, 2023-38500-40707, and 2024-38500-42306. The regional aquaculture centers integrate individual and institutional expertise and resources in support of commercial aquaculture development.
CTSA was established in 1986 and is administered by the University of Hawaii.

Center for Tropical and Subtropical Aquaculture | University of Hawaii at Manoa 1955 East West Road, Ag. Sci. 216 | Honolulu, HI 96822 US

Unsubscribe | Update Profile | Constant Contact Data Notice

Constant Contact

Try email marketing for free today!