

Letter from the Director

Aloha All,

First, I would like to celebrate the Biden administration's declaration of June as "National Ocean Month" in the U.S. and the creation of a "National Sustainable Ocean Plan" to guide future economic development of the country's ocean and coastal waters. This recognition of the ocean and its global importance is a critical step into the future of sustainable economic and societal development.

In the beginning of June, CTSA received 17 pre-proposals in response to our FY22 request and we are now in the midst of developing our annual Plan of Work to sustainably increase the production and harvesting of food from our surrounding waters. I would like to take this opportunity to extend my appreciation to those of you who submitted your project suggestions to our Industry Advisory Council and Technical Committee for funding consideration. While some pre-proposal suggestions may not be supported by a majority of council members, I encourage anyone with a concept they believe in to revise their key arguments as suggested in council comments and submit again in the next development cycle. CTSA has several examples of projects that were initially declined, revised and resubmitted, and continued on to achieve ultimate success. Please keep in mind that the regional aquaculture center program looks for proposals that have **direct** impacts on sustainable seafood production.

Also this month, I was pleased to attend the successful 2022 National Aquaculture Extension Conference and Continuing Education Workshop at Portland, Maine. Gathering our industry this year was no easy feat after several schedule changes due to COVID-19 outbreaks, and we owe a debt of gratitude to the tireless efforts of Dana Morse, Forrest Wynne, Reggie Harrel and many others. I would also like to extend my appreciation to my Western Pacific colleagues from Guam, Saipan, Micronesia, Marshall islands and Hawaii for their support and participation. It was nice to hear that they all enjoyed and learned from the meeting. Ryan Murashige led an engaging presentation on his CTSA-funded demonstration and technology transfer of moi cage farming in Majuro. Anthony Mau presented his education work at Kualoa Ranch and aquaponics business in Hawaii, and Mike Ogo discussed his new approach in extension work in the Commonwealth of the Northern Mariana Islands. I look forward to the next conference in 2026.

As always, we welcome your questions, comments and suggestions.

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



CTSA at the National Aquaculture Extension Conference and Continuing Education Workshop



CTSA Executive Director Dr. Cheng-Sheng Lee and several CTSA-supported researchers and aquaculture professionals from the Western Pacific Islands traveled to Portland, Maine for the National Aquaculture Extension Conference and Continuing Education Workshop. The conference was co-sponsored by the Regional Aquaculture Centers and the NOAA National Sea Grant Program. Held approximately every five years since 1992, this unique conference provides a forum for professional development and growth for all levels of experience and years of service in aquaculture extension education. CTSA was proud to help support presentations on aquaculture activities in the Marshall Islands, Commonwealth of the Mariana Islands (CNMI), and Hawaii. The poster presented by CTSA-funded researcher Michael Ogo from the CNMI is below and available for viewing in more detail on the [CTSA website](#):



Migrating to the Digital Platform to Continue Providing Aquaculture Outreach to Stakeholders in the Commonwealth of the Northern Mariana Islands (CNMI) During the COVID-19 Pandemic; Sharing Our Experience

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Abstract

Like everywhere else, the Covid-19 pandemic caught everyone off guard, including Northern Marianas College Cooperative Research, Extension, and Education Services, Aquaculture & Natural Resources (NMC CREES A&NR) program. Unfamiliar with the challenge of being unable to provide technical support to clients on a face-to-face basis due to the uncertainties of the pandemic, NMC CREES A&NR had to quickly identify alternative means of continuing its outreach activities without directly engaging the public. Following the lead of the host institution, A&NR migrated its outreach activities using local, available digital platforms, such as Zoom, Facebook, WhatsApp, Instagram, and SMS. With the challenges posed by the pandemic, working in the Commonwealth of the Northern Mariana Islands (CNMI), A&NR learned that a digital platform is an effective tool in continuing to provide technical support when faced with unforeseen externalities like a pandemic. This experience allowed A&NR to confirm that the virtual platforms can be an effective tool in providing a platform for the public to socialize in the safety of their own home while doing their part in containing the spread of the virus on the islands.

Methods

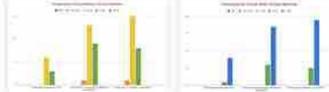
A&NR personnel participated in a training conducted by the institution on how to properly design and present webinars using Zoom two months into the pandemic. Two (2) webinars were presented monthly, which started May of 2020 unto November of 21. Topics ranged from: refresher subjects like aquaculture water quality monitoring and nutrition to help farmers improve productivity to new and innovative culture methods like Integrated Multi-Trophic Aquaculture (IMTA) to encourage sustainable production systems. In each webinar, "Temperature Checks" were taken before and after the presentations, to gauge the state of mind of the participants and pre and post-tests to evaluate the gain in knowledge from the materials presented in the webinars. The institution's marketing arm was intensively used to get the word out about the webinars because of its large following on social media platforms like Facebook and Instagram.

Results

There was significant improvement in the recipients knowledge after post-test compared to pretest. Data showed 54% actual gains in knowledge when compared from the presentations. Data also showed differences and positive gains in the state of mind from participants when the "Temperature Checks" prior to and after the webinars were compared with participants expressing feeling "OK" in the beginning and "Great" at the conclusion of the presentation.

Temperature Checks

(These study is based on a survey conducted before and after every virtual seminar)



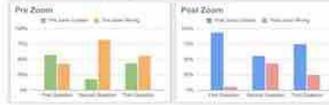
Aquaculture Biosecurity Plan Poll Results



Introduction to Shellfish Aquaculture Webinar



Aquaculture Biosecurity Plan Poll Results



Facebook Posts



Instagram Post



Discussion

The Covid-19 pandemic put everyone in aquaculture extension in unfamiliar territory. The advent and commonality of digital technology platforms somehow made it possible to continue providing services although different from traditional extension methods. Data-based results for NMC CREES A&NR's experience that shows gains in knowledge by webinar participants that can be used to improve productivity at the farm site and state of mind supports this assumption. This knowledge can then be incorporated into future disaster preparedness standard operating procedure for aquaculture extension.

Conclusion

✓ The use of digital platforms can be an effective tool for aquaculture extension when faced with extraordinary situations and circumstances like the Covid-19 pandemic. It allows programs to continue engaging the constituents while at the same time following safety protocols for the community. By its very nature, the measures instituted to limit the spread of the Covid-19 virus, prevented community gatherings, the use of digital platforms, however, minimized the angst and allowed people to socialize albeit in a virtual form which helped improve their state of mind despite the obvious challenges.

Introduction

The Covid-19 pandemic presented the NMC CREES A&NR program and its management and staff an opportunity to think outside the box and rise to the challenge of providing technical support to its end users despite the challenges of restrictions as a result of the pandemic. To this end, the program provided after thorough discussions and assessment of alternative methods available, and decided to use online resources such as video conferencing and social media platforms to engage and continuously offer services to clients. The overarching objective of the process was not to exacerbate the challenges of the pandemic by completely cutting off the client base from the rest of the community but rather to offer some connectivity and normalcy through the virtual platform for the safety of their homes and family. While the pandemic was raging in early and mid-2020, farmers continued to seek assistance from the program during and after the 30-day lockdown, the decision was made to utilize available, digital platforms moving forward, to offer programs on a regularly scheduled basis, without compromising worker and public safety.



Acknowledgement

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Aquaculture Announcements

NOAA Fisheries Releases 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

AquaClip: Can An Ancient Hawaiian Fishpond Turn A Profit?

Nomilo Fishpond on Kauai's south shore has been stewarded by generations of the same Hawaiian family since Philip Palama purchased it more than a century ago. Naturally formed when a dormant volcanic caldera filled up with water, the pond has seen several iterations since Palama fished its brackish waters at a time when a meal of ulua, mullet or oysters could be gathered in minutes.

In 1989, Palama's granddaughter Lynn Maile Taylor and her husband Thayne say they secured the first state license to grow shellfish in Hawaii and began to convert the fishpond into what they hoped could be a viable business. In its first version, Kauai Sea Farm harvested and sold shellfish to local chefs.

But the couple's novel business ambitions soon collapsed. In 1992, Hurricane Iniki's 145-mile-per-hour winds inundated the 60-acre property with debris, clogging critical seawater channels that attract fish into the pond, circulate the water and help keep the ecosystem clean.

For over 20 years the pond was stagnant. Choked by poor water quality and invasive mangrove, the health of the once-pristine aquaculture system deteriorated into a sludge that could support very little marine life until a new generation of Nomilo heirs cleared rocks and logs from its channels, slowly bringing the fishpond back to life. Now the Taylors are pushing to be among the first to prove that an ancient Hawaiian aquaculture system can turn a profit in modern markets, a mission that's giving their shellfish business a second act of reinvention.

"Most Hawaiian fishponds are nonprofits that are pretty much living off of grants. And we're a commercial business," said Lynn Maile Taylor, who, with her husband Thayne, is resurrecting the [Kauai Sea Farm](#) brand name to sell oysters and clams to chefs and consumers.

"It's kind of a big responsibility, owning a Hawaiian fishpond — and it's expensive," she explained. "We want to pass this on to the next generation and the next generation but it gets harder and harder as more people get involved. My vision has always been to find a way so that it can support itself financially." It's an unusual direction for the stewards of a Hawaiian fishpond to take.

Grant money is the dominant funding source for most of the dozens of active fishpond restoration projects underway across the state. Many of these projects are powered by volunteers who've established a nonprofit to facilitate the grant-writing process.

But this episodic revenue model poses disadvantages to the longevity of fishpond preservation projects, said Brenda Asuncion, who coordinates a network of more than 50 fishpond restoration projects, including Nomilo Fishpond, through the Oahu-based nonprofit [Kuaaina Ulu Auamo](#).

A burst of grant money can be critical to jumpstart a fishpond restoration project, but it can be difficult to secure dedicated, longterm workers when an organization relies on a revenue stream with a ticking expiration date. Grant management can also be burdensome for small organizations.

"I think folks sometimes seriously wonder whether the nonprofit model is a longterm option for fishponds," Asuncion said. "I think a lot of this generation and the younger generation would like to make a livelihood doing fishpond work and want to see opportunities or pathways for them to be able to do that. This commercial venture (at Nomilo) is an example of people trying something new."

Source: Civil Beat // [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.