



Letter from the Director

Aloha,

At the beginning of this month, several CTSA stakeholders submitted testimony letters to the U.S. Congress to advocate for the continued federal support of the Regional Aquaculture Center program. This annual practice is an important means for CTSA and the other centers to gain recognition on a national level for the work that we support regionally, and I would like to express my sincere appreciation to those who wrote letters on our behalf.

As an emerging industry in America, we look for government agencies, in particular the USDA, to help us support the development of aquaculture production technology. Aquaculture is one of the most sustainable ways to produce protein for human consumption, due in large part to the most efficient feed conversion among animal protein production. Furthermore, responsible aquaculture production can help to restore wild fish populations and balance ecosystems. It is certainly an industry that, if developed properly, can help solve the planet's looming food shortage.

Although the U.S. has been rather slow to capitalize on the opportunities for national aquaculture production, our country is known for having some of the strictest food safety and best management practices when it comes to fish farming. Considering the all too frequent news stories about tainted aquaculture imports from other countries, now is the time for us to focus on expanding our national production. CTSA encourages the continued development and funding support of American aquaculture research, and I applaud your efforts to do the same.

Mahalo,

Cheng-Sheng Lee

Executive Director, CTSA

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Attention Farmers! New Hawaii Tilapia Health Program

The Hawaii Tilapia Health Program (HTHP) is a voluntary, state program for tilapia producers. It is managed by the Hawaii Department of Agriculture - Animal Disease Control Branch (HDOA-ADC). The purpose of this program is to monitor and prevent the spread of disease and to give tilapia producers the opportunity to add value to their product with health certification.

The success of the program is dependent on the cooperation between the industry and state government. The tilapia producers must share information with the Aquaculture Veterinarian. The farms' biosecurity protocols will be reviewed and recommendations will be given to help prevent disease introduction. The producers must keep good records and report significant events (new animal introduction, mortality, etc.). The Aquaculture Veterinarian will collect samples of tilapia to



test for *Francisella noatunensis subspecies orientalis* (Fno), an intracellular bacteria that causes morbidity and mortality. Samples from 30 animals will be collected every 6 months. The Aquaculture Veterinarian will decide what species and life stage to collect. The samples will be submitted to the Oceanit Laboratory in Honolulu, HI and tested by polymerase chain reaction (PCR). The test results will be sent directly to the Aquaculture Veterinarian for review and distribution to the producer.

Producers are responsible for the cost of testing. The samples from the 30 fish will be pooled into 6 cryovials. The total for each sample collection is

\$600.00. Below is the cost breakdown.

6 vials x \$75.00 = \$450.00
Setup fee = \$150.00
Total = \$600.00

Participants in the program receive a letter of health if the test results are negative. Producers that continuously test negative to Fno may be able to ship to neighboring islands. Export documents (health status report and certificate of origin) may be requested 72 hours before the animals are shipped. A list of participants along with their contact and product information will be listed on the HDOA website.

If the test results are positive for Fno, the animals will be retested by PCR and histological examination to confirm the initial results. If there is a confirmed case of Fno, the producer must follow the recommended clean-up plan. If you are interested in participating in this program, please contact Lei Yamasake at Lei.S.Yamasaki@hawaii.gov.

NOAA Funding Competition & Aquaculture Outreach Video

NOAA Funding Competition: 2016 Aquaculture Sea Grant Conferences, Workshops, Training and Information Transfer Projects

Closing Date: May 20, 2016

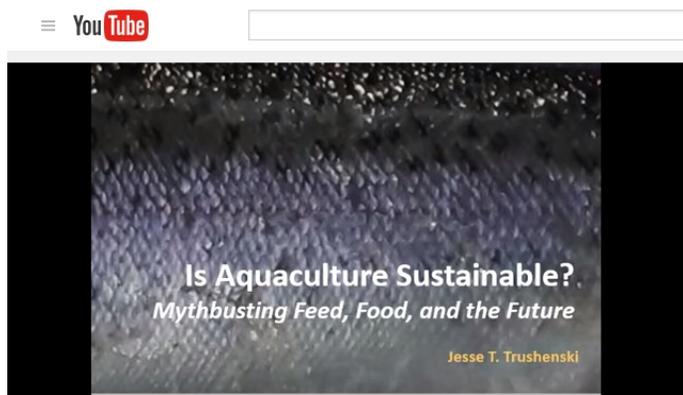
The National Sea Grant Office anticipates that at least \$400,000 will be available to support proposals for conferences, workshops, and training and information transfer projects addressing regional or national issues with an emphasis on aquaculture. Applications for this funding will be considered until 11:59 pm, Eastern Time, May 20, 2016. Applications must address the focus area of Sustainable Fisheries and Aquaculture, but may address additional focus areas as well. Additional focus areas are Healthy Coastal Ecosystems, Resilient Communities and Economics, and Environmental Literacy and Workforce Development.

Applications should request no more than \$20,000 in federal funds to be considered for this funding opportunity. Non-federal matching funds of at least 50% of the federal request must be included in the application. An application must include a project description and Standard forms found in the application package located on grants.gov. This competition is only open to Sea Grant Programs, the National Sea Grant Library, and the National Sea Grant Law Center. For how to submit, evaluation criteria, general programmatic priorities and selection factors, eligible applicants, required elements of the application, and other necessary information, please consult Federal Funding Opportunity NOAA-OAR-SG-2016-2004772, available on grants.gov. Questions may be sent to oar.hq.sg.competitions@noaa.gov.

Have You Seen This Video? Useful Aquaculture Education and Outreach Resource

As you are likely aware, there is a lot of misinformation about aquaculture on the internet. CTSA tries to do our part to close the gap between fact and fiction through the dissemination of our publications and short videos profiling aquaculture farmers and activities in the region. We are also

happy to share other publications and videos that do the same. In the video "Is Aquaculture Sustainable? Mythbusting Feed, Food, and the Future," Jesse Trushenski tackles some of the major issues related to sustainability in aquaculture, separating fact from fiction. [Click here to watch](#) this useful resource for educators and outreach professionals.



AquaClip ~ Skretting makes fishmeal-free feed breakthrough

by AquaFeed.com staff, March 24, 2016.

Fishmeal availability will not limit future growth for the salmon industry, says Skretting, as it makes a breakthrough in fishmeal-free feed.

Skretting is the first to market with salmon feeds that can be formulated completely free of fishmeal, while delivering equal performance in terms of fish growth and health.

These breakthrough products, called MicroBalance FLX, have been made possible through progressive and extensive research, and are backed up by detailed evidence from Skretting Aquaculture Research Centre (ARC).

The development means that Skretting can be increasingly flexible with raw material inclusions, enabling the available responsibly sourced fishmeal resource to go much further than in the past, and thereby increasing the sustainability credentials of salmon production globally.

"Feeding the future is Nutreco's mission, and this breakthrough in raw material flexibility gives us the ability to provide a significant contribution to feeding the global population that is expected to reach 9 billion by 2050," said José Villalon, Corporate Sustainability Director for Nutreco, Skretting's parent company.

"Through our research, we have detailed evidence proving that salmonids can be fed with feeds that are devoid of fishmeal. This is important knowledge that we will use to give us even more flexibility in the composition of our commercial feeds," said Dr Leo Nankervis, Team Leader Salmonid Nutrition at Skretting ARC.

[Click here to read the full article.](#)

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 grants 2012-38500-19566 and 2014-38500-22241. 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 Oceanic Institute and the University of Hawaii.

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