

REQUEST FOR PRE-PROPOSALS

Center for Tropical and Subtropical Aquaculture

Due Friday, June 15 2018

The Center for Tropical and Subtropical Aquaculture (CTSA) requests pre-proposals for applied research and extension that addresses problems and opportunities in the regional aquaculture industry.

CTSA stakeholders have identified the below strategic areas and species as the top aquaculture development priorities. Pre-proposals that target these strategic areas and priority species will receive highest preference. However, pre-proposals that do not fall under specific priority areas but address CTSA's mission will be considered in our development process. **Our main focus is on funding projects that will have immediate, positive impacts on the regional aquaculture industry.**

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. CTSA is funded by an annual grant from the U.S. Department of Agriculture's National Institute of Food and Agriculture (NIFA). The current CTSA region includes the following areas: American Samoa, Guam, Hawaii, the Commonwealth of the Northern Mariana Islands, the Republic of the Marshall Islands, the Federated States of Micronesia, and Palau. Pre-proposals should utilize innovative approaches that take into account the unique environmental situation of the region. **One of CTSA's primary goals is capacity building. Accordingly, we strongly encourage collaboration between institutions and agencies in the region, as well as shared funding of large priority projects. Cultivating strong regional partnerships will catalyze the greatest changes in our industry, and projects that demonstrate an understanding of this principal are more likely to be supported.**

Please note: Desired outcomes and/or deliverables are included where applicable. They represent industry-identified requests and it is strongly recommended that they be addressed in your pre-proposal.

FY 2018 Strategic Areas & Priority Species

Mangrove Crab

Mangrove crabs are a highly desired food in the Pacific islands and have thus been heavily harvested throughout the region. CTSA is supporting ongoing work to improve production of mangrove crabs in Palau, but is still open to additional projects to improve production throughout the region and mitigate cannibalism of this important species.

Shellfish

CTSA stakeholders continually express their desire to farm shellfish in Hawaii and the US-affiliated Pacific islands using traditional Hawaiian Fishponds or other aquaculture technologies, including land-based tank culture. CTSA will consider a proposal emphasizing grow out of valuable / marketable shellfish species in Hawaii and the region.

Cost Effective Locally-Made Aquatic Feed

Affordable feed has been identified as one of the major constraints in the regional development of aquaculture. CTSA has supported many local feeds projects, including two recently approved projects to use locally available ingredients for feed production at the new OI/UH research feed mill in Hilo. However, there are still gaps in knowledge of the cost-effectiveness of producing local feeds. Considering the significance of this issue in the region, CTSA is seeking a proposal to conduct an economic study and identify the cost-effectiveness and feasibility of producing feed in Hawaii and throughout the region. CTSA also welcomes any new and innovative suggestions to make aquatic feed more affordable for farmers in the region.

Marine Finfish Farming Technology

Farming of finfish such as rabbitfish, moi, Kahala groupers, and saltwater-tolerant tilapia is important for the region and has been identified as a commercial aquaculture practice with potential for growth. CTSA has currently and previously supported the development of farming technology for the aforementioned species, and will accept proposals to help solve remaining culture issues (primarily pertaining to reliable source of fingerlings, affordable feed, growth rate and feeding requirements, and sustainable farming practices and systems, etc.). CTSA will also accept proposals for new species development. In addition, CTSA will consider proposals that address hatchery technology for marine ornamental fish from the perspectives of both supplying the marine aquarium market and the restoration of coral reefs.

Sea Cucumber farming technology

With an increased demand for sea cucumber in Asian markets, natural stocks of the species have been over harvested in some Pacific Islands, resulting in impacts to the conditions of the habitat for other species as well. To mitigate this problem, CTSA recently funded projects to develop and transfer sea cucumber hatchery technology to Pohnpei and Yap. However, researchers are still experiencing high mortality during the nursery phase before seedstock can be released into the wild or cultured on farms. CTSA will consider a proposal to identify the cause of this mortality, and to provide solution(s) to make sea cucumber production commercially feasible.

Disease management and diagnostic services

The paucity of disease management and PCR diagnostic services for aquaculture operations in the Pacific Islands has had a negative impact on local farmers, especially shrimp broodstock companies based in Hawaii. In an effort to address this issue, CTSA approved an FY17 project to help establish a shrimp disease diagnostic laboratory that will be jointly administered by the University of Hawaii at Manoa and the State of Hawaii Department of Agriculture. As part of its FY18 priorities, CTSA will consider a proposal to further enhance the services offered by this new laboratory (or other capable disease management providers **located in the CTSA region**), including but not limited to the addition of fish disease diagnostics and extension services.

Other

Other species, opportunities, and challenges have been identified as priorities for aquaculture development and production in the Pacific islands. CTSA will consider proposals that seek to address the following topics; strengthening regional extension services, especially in the Western Pacific; macroalgae culture for human consumption and aquatic feed production; advanced aquaculture-relevant research on aquaponics, such as management of fish sludge from aquaponics systems; and development of effective, affordable instrumentation to monitor nutrient levels and other factors in aquaponics and/or aquaculture systems.

Process and Instructions

Pre-proposals that do not follow the guidelines outlined in this section will be rejected. Properly formatted pre-proposals received by the deadline, 5pm HST Friday June 15 2018, will be reviewed by CTSA's Industry Advisory Council (IAC) and Technical Committee (TC). Only pre-proposals that receive a majority of votes will move forward with requests for a full proposal. Full proposals will receive both internal and external review for technical quality and industry impact. **Not all full proposals may be awarded.** Full proposals approved by the CTSA Board of Directors and the USDA as part of the CTSA FY18 Plan of Work are expected to have funding available for implementation by July 2019.

CTSA typically does not fund projects for more than \$100,000 per year. However, a project will not be automatically rejected if it exceeds that amount. CTSA gives preference to projects that will deliver the most benefits at the lowest cost. Due to its limited project budget (< \$600,000), CTSA will distribute funding to the highest ranked proposals until it has exhausted all available funds.

Eligible Applicants

Universities, community colleges, or nonprofit research institutions and organizations from the CTSA region must lead project execution. Private individuals or commercial companies are welcome to participate in research work but cannot act as the prime contractor for any project.

Pre-Proposal Guidelines

When submitting pre-proposals, researchers must identify the strategic area(s) and priority targeted. In addition, they must identify the type of project they are proposing: Research, Extension, or Integrated (Research & Extension).

Although an individual may submit a maximum of three pre-proposals, a researcher can act as principal investigator to only two projects in a single funding cycle. Pre-proposals must be no more than two pages (single-spaced, 12-pt. font, 1-inch margins), and the required format is Microsoft Word.

Pre-proposals must include the following sections:

1) Proposed title or main idea

2) Strategic Area and Priority targeted

3) Problem statement

Clearly explain the significance of the targeted problem and its relation to current and future industry development.

4) Proposed objectives

Define and number objectives that are achievable and measurable. Please visit the CTSA Web site (www.ctsa.org) to view previously funded projects so that your pre-proposal does not duplicate the work of completed or current projects.

5) Expected Industry Impacts

You must clearly define how your proposed project will realistically impact the regional aquaculture industry in economic terms, and indicate the potential return on investment. Please be specific in your description. CTSA typically funds projects that benefit multiple stakeholders. However, single beneficiary projects with compelling reasons will be considered. If the project will result in a new industry, the estimated economic impact of the industry has to be discussed.

6) Approach

Describe the principal approach that the project work group will use to accomplish the objectives outlined in your pre-proposal.

7) Duration

If a project's duration is to be more than one year, then your pre-proposal must include objectives and approach for each year. Objectives listed should be accomplished within a three- year time frame.

8) Estimated budget

Estimate the amount of funding needed to accomplish objectives. A breakdown need only include total estimates for major categories, such as salary, supplies, and equipment.

9) Project work group members

List members, by name and affiliation, who will participate in the execution of the proposed project.

10) Related research

If any participant has previously received CTSA funding to address the same species or subject area covered in the current proposal (or similar issues), provide a brief statement highlighting the results of that work and justification for the proposed project.

How to Submit

Please e-mail pre-proposals to mbrooks@ctsa.org by 5pm HST, Friday June 15, 2018. If you have any questions, please contact Meredith Brooks via e-mail or by telephone at (808) 292- 1323. If necessary, pre-proposals may be faxed to (808) 259-8395 or mailed to the following address:

*Center for Tropical and Subtropical
Aquaculture C/O Oceanic Institute of Hawaii
Pacific University 41-202 Kalaniana'ole Hwy.
Waimanalo, HI 96795*