

REQUEST FOR PRE-PROPOSALS

Center for Tropical and Subtropical Aquaculture

Due Monday, June 30, 2014

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 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 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. **CTSA strongly encourages 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.

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 2014 Strategic Areas & Priority Species

Cost Effective Locally-Made Aquatic Feed

Affordable feed has been identified as one of the major constraints in the regional development of aquaculture. CTSA would like to solicit a proposal that will develop cost-effective, environmentally friendly and sustainable local aquaculture feed resources. The major goal should be to create a local feed source that is less expensive than imported feed for species currently being farmed and/or species identified in a CTSA survey as desired species for regional farming. These include but are not limited to tilapia, marine shrimp, moi, Kahala, rabbitfish, and groupers. CTSA encourages the leveraging of resources for a collaborative effort to achieve this goal. In addition, there is interest in investigating the potential of converting waste to acceptable feed ingredients or using abundant marine products, such as algae and seaweed (including invasive species), to replace traditional ingredients in feed.

Tilapia Farming Development

Tilapia has been identified as one of the most desired species for aquaculture farming throughout the CTSA region. Although most farming technology is available, the development and expansion of tilapia farming still faces regional challenges. One of the highest priorities in recent

years has been stock improvement, and much work has been done in that area. CTSA encourages studies to continue improving the quality of tilapia farming, and has identified the following top priorities for FY2014:

- 1) **Importation and Permitting:** there is interest in conducting a follow-up population survey to verify the presence of the fast-growing species niloticus in the wild in Hawaii. A recent CTSA study confirmed through DNA testing the presence of niloticus in the wild; however, additional sampling is needed to create a more complete picture of niloticus in feral populations in Hawaii.
- 2) **Best Management Practices:** with the rapid regional increase in tilapia production, there is a desire to develop protocols to ensure the quality of the final products that are available to consumers in the local market. From fingerling production to marketing, these practices should cover the entire span of production, and should consider the most cost-effective and environmentally responsible methods.

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. To mitigate this problem, CTSA recently funded projects to transfer sea cucumber hatchery technology to Pohnpei and Yap. CTSA will consider proposals to extend this technology from laboratory scale to commercial application(s), or to transfer sea cucumber farming technology to other areas in our region. Projects could include but are not limited to polyculture with shrimp (to remove heavy metals) or other aquatic animals, and development of a comprehensive manual for culturing sea cucumbers.

Marine Shrimp Farming

The CTSA region is known as the main source of SPF white shrimp broodstock for many shrimp farming countries around the world. However, the local shrimp farming industry is still struggling to achieve profitable and sustainable operations, mainly due to the high costs of feed, energy, labor, and transportation on most islands. CTSA is therefore soliciting a proposal for a collaborative effort between researchers and industry members to improve production efficiency and sustainability of marine shrimp technology, and to create new revenue streams through polyculture of additional crops, such as clams.

Marine Finfish Farming Technology

Farming of marine finfish, such as moi, Kahala, rabbitfish, milkfish, mullet and groupers, 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 several of the aforementioned species. However, stakeholders have indicated that existing operations are still struggling with impeding issues, mainly the lack of a reliable source of fingerlings. CTSA will accept proposals to help solve this issue. In addition, CTSA will consider proposals to culture new species, but only those that demonstrate significant and realistic probability of commercial culture.

Shellfish

CTSA stakeholders expressed their desire to farm shellfish using traditional Hawaiian Fishponds or other aquaculture technology. CTSA is supporting ongoing research to culture bivalves in the state of Hawaii. While the project is experiencing great success, there is still a need for a reliable long-term source of seedstock once the project is complete. Therefore, CTSA is soliciting

proposals to investigate potential sources. There is also interest in developing SPF clam aquaculture in the state, and a proposal to start the process will be considered. In addition, CTSA is calling for a proposal to continue developing the technology to culture opihi; any proposed work should be based on the progress made in the recently completed “Aquaculture of Opihi” project (funded by CTSA).

Aquaculture in Hawaiian Fishponds

There is an increasing interest in the revitalization of Hawaiian fishponds for cultural, educational, and food production purposes. CTSA will consider proposals to enhance aquaculture production and increase yield in fishponds; projects must demonstrate collaboration between the research and fishpond communities.

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, Monday, June 30, 2014, 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 FY14 Plan of Work are expected to have funding available for implementation by July 2015.

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 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 Monday, June 30, 2014. 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:

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