



2021 REQUEST FOR Pre-Proposals

Connecticut

Delaware

Maine

Maryland

Massachusetts

New Hampshire

New Jersey

New York

Pennsylvania

Rhode Island

Vermont

Washington D.C.

West Virginia

Submission Deadline via email*:

by 4 PM, 17 July 2020

(Local Time at College Park, Maryland)

Expected Funding September 2021

In Cooperation with
USDA

National Institute of Food and Agriculture (NIFA)



United States
Department of
Agriculture

National Institute
of Food and
Agriculture

*Email submission to ssadams@umd.edu. No hard copies required

TO: POTENTIAL APPLICANTS FOR NRAC FUNDING

The Northeastern Regional Aquaculture Center (NRAC) is inviting Pre-Proposals for project funding consideration. This **2021 Request for Pre-**

Proposals (RFP) identifies targeted research areas that NRAC is considering for funding. The NRAC selection criteria, review process and Pre-Proposal submission guidelines are described in the **RFP**. **Extension is an essential component for success and must be integrated into the pre-proposal's budget.**

The deadline for submitting Pre-Proposals is **17 July 2020**. (Local Time in College Park, Maryland). Pre-Proposals will be reviewed to determine which investigators will be invited to submit detailed full proposals for consideration. Eventual funding will require a successful full proposal. Successful

proposals are expected to receive funding by **September 2021**.

This round of proposal development and project funding will use funds available from NRAC's grant award from the United States Department of Agriculture, National Institute of Food and Agriculture (NIFA). NRAC will accept pre-proposals in the targeted research priority areas described in the **RFP**. Proposal funding is contingent on NRAC budget approval by Congress. Research priority areas are recommended to NRAC by representatives of the aquaculture industry in the Northeast through an industry driven committee process.

GENERAL CRITERIA FOR NRAC FUNDING

In addition to technical and industry merit (and the specific evaluation categories listed on page one), research and project proposals are judged against **six criteria**. **YOUR PROPOSED RESEARCH OR PROJECT MUST:**

1. **SUPPORT COMMERCIAL AQUACULTURE INDUSTRY DEVELOPMENT** in Washington D.C. or the twelve Northeastern states. Your project must be relevant to the targeted research area as determined by industry and listed in this RFA and/or provide evidence of potential economic benefit to the aquaculture industry.
2. **HAVE THE ASSISTANCE, SUPPORT, OR ENDORSEMENT OF INDUSTRY** in the Northeast. Funded or non-funded industry collaborators are encouraged; letters of endorsement from industry members or associations can provide additional evidence of the value of the proposed project. (Letters are needed for full proposals only)
3. **BE REGIONAL: Funded project team members**, advisory panel members, research sites or demonstration-outreach sites must be from two, and preferably more, states in the Northeast region. Additional participants from outside the region are welcome, as appropriate.
4. **HAVE A FUNDED EXTENSION OR OUTREACH COMPONENT**, which will facilitate information dissemination, technology transfer or training to the aquaculture industry throughout the Northeast.
 - Explicit extension individual(s), goals and objectives, work plan, and budget must be included in the proposal. NRAC requires an electronic copy of Extension publications that result from the project (e.g., Extension Bulletins, Fact Sheets, Curricula, Special Reports, etc.) – include this expenditure in the project budget. Note: Printed copies of publications may no longer be required by NRAC unless specifically requested.
 - NRAC wishes to encourage the use of and the development of services for its website at:
<http://agresearch.umd.edu/nrac>
5. **IDENTIFY ROLE OF COLLABORATORS:**
The role of all collaborators and cooperating, non-funded participants must be defined. Token collaborators will not be counted.
6. **MEET BUDGET REQUIREMENTS:**
Any costs not allowed by USDA for NRAC projects are also not allowed to be claimed as matching funds (e.g., indirect costs or overhead, tuition remission, capital costs). Matching funds or cost sharing funds are not required and **should NOT** be included in the budget sheets

Please **CALL NRAC** (301) 405-6917, email ssadams@umd.edu, or consult NRAC's Website at <http://agresearch.umd.edu/nrac> if you have any questions regarding these issues, for assistance in building regional teams, or in developing extension/outreach programs.

NORTHEASTERN REGIONAL AQUACULTURE CENTER 2021 REQUEST FOR PRE-PROPOSALS

Background and Authorization

The NORTHEASTERN REGIONAL AQUACULTURE CENTER (NRAC) located at the University of Maryland was created in 1987 to “support aquaculture research, development, demonstration and extension education to enhance viable and profitable U.S. aquaculture production which will benefit consumers, producers, service industries, and the American economy”. NRAC is one of five Regional Aquaculture Centers established by the U.S. Congress and administered by the U. S. Department of Agriculture (USDA) National Institute of Food and Agriculture (NIFA). NRAC is supported by yearly grants from USDA, which is authorized under Federal legislation (Agriculture and Food Act of 1981, Title IV, Subtitle L, §1440, Pub. L. 97-98) to coordinate efforts in the implementation of the National Aquaculture Act of 1980.

NRAC supports research, extension education, development, and demonstration projects aimed at increasing aquaculture production, profitability, and processing. The NRAC comprises the geographical region of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, Washington D.C., and West Virginia. Qualified individuals within the region associated with any state agricultural experiment station, college, university, other research institution or organization, federal agency, private organization or corporation are eligible to participate.

There is approximately \$475,000 available from NRAC yearly grants to fund relevant and selected projects. NRAC will fund projects for up to two years with total funding of up to \$200,000. Although NRAC will consider projects of longer duration and larger budgets such projects will require very strong justification of the time and larger budget. Projects exceeding three years will not be considered. NRAC funds between two and five projects each year. Research priorities are established at industry and technical committees sponsored by NRAC. Targeted research, extension, and demonstration areas are reviewed by NRAC's Technical and Industry Advisory Council (TIAC) and are ultimately

Pre-Proposal Evaluation Criteria: Pre-proposals will be judged by the NRAC Technical and Industry Advisory Committees in five categories:

| | | Maximum Points Per Item |
|----|---|-------------------------|
| 1. | <i>How well does the Pre-proposal address the problem statement</i> | 25 points |
| 2. | <i>Benefits and potential economic impact to the aquaculture industry</i> | 25 points |

approved by NRAC's Board of Directors and USDA, NIFA.

Pre-Proposal Submission Guidelines

Pre-Proposals: NRAC encourages short pre-proposals to present ideas, objectives and working procedures on identified industry problems.

A signed electronic copy in a single WORD or pdf document must be submitted via e-mail to ssadams@umd.edu. No printed or hard copies are required.

The following format (see on pages 8 thru 12 below) must be strictly adhered to:

1. A separate title/signature page;
2. The pre-proposal body (not to exceed three [single-sided] pages, in a font not smaller than Times Roman 12 point; margins - top 1", sides and bottom, 0.5" minimum) describing the project in the categories “Why, What, Where, Who, How and When”;
3. **A separate one-page budget summary is now optional, however, if asked to submit a full proposal, the PI is held accountable for scope and magnitude to reflect objectives in submitted with the pre-proposal. The PI must be realistic in the Scope of Work.** (Do not list ten things in the preproposal but PI can only realistically complete three due to budget restraints.) Matching funds or cost sharing funds are not required and **should not** be shown on the budget sheet.
4. One page only vita (résumé) for each researcher or cooperator
5. Please be concise and follow all instructions. Pre-Proposals that do not adhere to the format will not be considered.

| | | |
|--------------|--|-------------------|
| 3. | <i>Overall scientific and technical approach</i> | 10 points |
| 4. | <i>Overall probability of the team accomplishing the objectives considering qualifications of participants, availability of facilities and equipment, adequacy of requested funding, and proposed time line.</i> | 20 points |
| 5. | <i>Adequacy of the extension plan to disseminate and make the technology available to the industry.</i> | 20 points |
| Total | | 100 points |

The NRAC TIAC will use point totals to rank pre-proposals. The PI's of the top ranked pre-proposals will be contacted to develop full proposals. It is expected that approximately twice as many full proposals will be requested as can be funded.

All Pre-proposals will be judged for technical merit and relevance to the identified areas by a review panel of technical, extension, and industry representatives drawn from the Northeast region. Full proposals, when submitted, will be subject to external peer review as well as internal review by NRAC.

Individuals submitting pre-proposals, and those pre-proposals selected for full proposal development *are not assured of funding by NRAC*. Ultimate approval for funding of full proposals will be by the NRAC Board of Directors and by the US Department of Agriculture, National Institute of Food and Agriculture (NIFA) and are contingent on availability of Congressional appropriations for NRAC.

Regionality and Extension: NRAC funded projects are OUTCOME driven where the information derived from projects has an immediate or near-term direct application for the industry. To that end, documentation (submission of a Logic Model) of expected change (outcomes) in knowledge, adoption of recommended practices, and/or changes in societal behavior toward aquaculture is an expectation.

NRAC requires that all pre-proposals have regional involvement and that all proposed work include an outreach or extension component to ensure that results or products be transferred or made available to industry or public entities. **Funded individuals and institutions from two or more northeastern states must participate in any funded projects.** Any exceptions to this rule must be extensively justified. Dissemination of project results to targeted audiences is an expectation as is discussion of extension aspects with Extension specialists within the region.

Pre-proposals with strong regional participation that incorporate team building and extension activities will be viewed most favorably. All individuals who submit or are included in full proposals will be required to provide a signed letter of intent to participate in the project in their indicated capacity.

Proposals without an extension component and Logic Model submission will not be considered.

Targeted Research Areas: NRAC is interested in funding selected projects dealing with the research area listed in this RFA. This area was identified by representatives of the Northeastern regional aquaculture industry and the Technical and Industry Advisory Council (TIAC). **Pre-Proposals with strong industry support and evidence of industry partnership are favored.**

Special Considerations: The NRAC program will not pay indirect costs (i.e., overhead) to participating institutions, and will not pay student tuition remission costs. NRAC expects applicants to have equipment and facilities in place; NRAC will not pay for brick-and-mortar costs per the terms in our Prime Grant through USDA/NIFA.

Regulations applicable to NRAC grants include the USDA Uniform Federal Assistance Regulations, 7 CFR Part 3015 and Special Terms and Conditions thereto. All individuals funded by NRAC are required to submit the NIFA-2008 Form (Assurance Statement).

Project Coordinator (PC) and Principal Investigators (PI): One PC (the lead PI) must be identified for each project. The PC's institute is the recipient of the NRAC award, and issues subcontracts to the PI's of the project. The PC coordinates and monitors the activities and progress of all PI's, maintains communication among participants, is responsible for overall project reporting to NRAC, is the main contact person on the overall project, and is fiscally responsible to NRAC for the overall project. Each PI is fiscally responsible to the PC's institution for their subcontract, and is responsible for reporting data and deliverables in a timely manner to the PC. The host institution is responsible for collecting appropriate forms and legal documents (i.e., conflicts of interests, IACUC and/or IBR protocol approvals (if warranted), etc.). An individual may be a PC or PI on more than one proposal.

All funded individuals will be required to provide a signed letter of intent to participate in the project in their indicated capacity.

Conflict of Interest: NRAC encourages the participation of the best qualified researchers, extension personnel and industry members throughout the Northeastern Region. While NRAC does not intend to exclude Board or TIAC members from involvement on funded projects, there are certain restrictions that are detailed in NRAC's Conflict of Interest Guidelines. These guidelines are posted on the NRAC Website and can be obtained from the NRAC office.

All inquiries and submissions should be addressed to:

Sharon S. Adams
ssadams@umd.edu
NRAC Coordinator/RFA 2021
Northeastern Regional Aquaculture Center/NRAC
University of Maryland
2113 Animal Sci./Agric. Engineering Building #142
College Park, Maryland 20742-2317

Additional information about NRAC and copies of this RFA are available on the NRAC Web site at <http://agresearch.umd.edu/nrac>

Targeted Research Areas (TRA)

The following targeted research areas have been prepared by the NRAC Technical/Industry Advisory Committee and approved by the Board of Directors. Pre-proposals that address the targeted research area will receive equal consideration. Aquaculture commodities chosen for study should have proven or have viable economic potential for commercial development in the Northeast region. Collaborative partnership(s) with appropriate industry sector(s) or firm(s) is highly encouraged. Projects that promise to produce tangible end products that are of direct use or value to particular aquaculture businesses, or addresses key bottlenecks to aquaculture operations or marketing are preferred.

PROBLEM STATEMENTS

TRA 21-1

Goal: Create innovative strategies addressing social barriers to development and sustainable expansion of the aquaculture industry in the Northeast region.

Statement of the problem: Social, political, and economic issues, including public perceptions, user conflicts, regulatory and legal issues, and constraints in markets and distribution networks, limit sustainable expansion of the aquaculture industry. NRAC seeks to fund development, implementation, and adoption of innovative approaches that foster regional industry growth and success. Proposals could focus on:

- Addressing social barriers that inhibit sustainable expansion of the aquaculture industry, such as issues with public perception or user conflicts.
- Identifying and assessing the benefits, and/or potential unintended consequences, of industry expansion relative to social carrying capacity.
- Developing approaches that simplify the permit approval process, decrease the regulatory burden, and promote regulatory harmonization among states within the region, while preserving accurate and fair stakeholder input and biological and social sustainability.
- Communicating and disseminating effective science-based information about aquaculture.
- Identifying or implementing social strategies that improve public perceptions of aquaculture, for example: certification processes and standards for organic, ethical, or sustainable production, or strategies addressing social, economic, or ethnic considerations.
- Evaluating and quantifying ecological, economic, social, and cultural benefits of aquaculture and how these may inform regulations, blue carbon credits, or other novel opportunities.

NRAC funds multistate, outcome-based research, and deliverables should be clearly specified.

Collaboration with industry and/or extension is required. These individuals must be identified and their participation explicitly detailed in the proposal.

TRA-21-2

Goal: Research and demonstrate opportunities for increased profitability.

Statement of the Problem: Aquaculture in the Northeast region includes a diversity of species, systems, and industries. NRAC funds projects focused on all aspects of aquaculture relevant to inland and coastal states in the region, but with an emphasis on factors that continue to constrain the development, growth and profitability of aquaculture in the Northeast. NRAC seeks proposals that increase profitable production by:

- Lowering input costs (e.g., labor, energy, capital equipment, feeds, and space) related to the production of aquatic organisms.
- Developing value-added products from aquaculture and aquaculture waste materials.
- Creating potential for bioremediation, ecological services, and/or ecological restoration using aquaculture products and/or methods.
- Demonstrating the effectiveness of breeding and/or strain selection for improving production

- efficiency and/or product quality on the farm.
- Improving feeds to lower rearing costs, reduce fish-meal protein inputs, improve health, promote growth, and increase survival.
 - Eliminating knowledge gaps related to closing the life cycle of species with aquaculture value.
 - Expanding upon the knowledgebase of infectious and non-infectious disease to improve health management and production on the farm.
 - Modifying farming and production strategies in response to environmental change and industry expansion.
 - Reducing labor inputs associated with biofouling and predator control, particularly for invasive, non-endemic, or emergent biofouling organisms or predators.
 - Developing organic certification standards and assessment of the path towards implementation in the region.

**NRAC funds multistate, outcome-based research, and deliverables should be clearly specified.
Collaboration with industry and/or extension is required. These individuals must be identified and their participation explicitly detailed in the proposal.**

Mini Grant Priority Item:

We seek to fund an extension agent networking session at 2021 NACE meeting. This networking session will serve to help educate new extension agents about the role and opportunities at NRAC, and to develop two-way communication among NRAC and the extension network in the Northeast, and set the foundation for creation of a strong network of aquaculture extension support in the region.

NRAC 2021 Pre-Proposal Title Page

Project Title: _____

Project Duration (months): _____

Total Funding Requested from NRAC: \$_____

States with Participants in Project (circle / list):

CT DE ME MD MA NH NJ NY PA RI VT WV Wash, DC / Other: _____

Project Coordinator (Lead Principal Investigator) (name/position/institution/address/phone/fax/email):
(one name only)

Principal Investigator(s) (name/position/institution/address/phone/fax/email):

Cooperating, Non-funded Participant(s) (name/position/institution/address/phone/fax/email):

Project Coordinator's Signature: _____ **Date:** _____

NRAC 2021 Pre-Proposal

Description of Project Categories and

Body of Pre-Proposal

- 1.0 WHY:** Justify the problem or issue addressed by the proposed project.
- 2.0 WHAT:** State the objectives of the project and their relationship to the problem or issue described above.
- 2.1 Describe the product, process, or program that will result from successful accomplishment of the project objectives.
 - 2.2 Identify and describe the end-users and beneficiaries of the project results.
 - 2.3 Indicate what measurable economic benefits will result from the use of the product/process/program.
- 3.0 WHERE:** Identify the states and region (e.g., Chesapeake Bay) and describe the environment (land-based system, freshwater, nearshore, etc.) where the project results will be immediately applicable. Where else may the results be transferred to and applied?
- 4.0 WHO:** Describe who will be involved in the project and their respective roles and responsibilities. Attach a one page vita of each funded participant. (Number 8 below)
- 5.0 HOW:** Describe how the project will be carried out and achieve the objectives defined above. Describe the supporting facilities that will be made available to the project. How will project results be evaluated? How will the results or products be transferred to industry or public entities?
- 6.0 WHEN:** Indicate desired starting and completion dates (months) for the proposed project (i.e., account for seasonality of data collection). Provide a clear time line for completion of objectives with due dates specified for all products (Funding would not be available before August of 2016).

7.0 BUDGET SUMMARY: OPTIONAL

NRAC will not pay for indirect costs (overhead), student tuition remission, and capital costs. These may not be included as a component of matching funds. Matching funds or cost sharing funds are not required but if included should be shown on the budget sheet. (Budget totals on the pre-proposal will be expected to be the same as on the full proposal if a full proposal is requested).

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Funds Requested

Funds Requested
from NRAC

Salaries and Wages

- A. Principal Investigators
- B. Research Assoc./Postdoctorates
- C. Graduate/Prebaccalaureate Students
- D. Other Professionals (not consultants)

Fringe Benefits

Non-expendable Equipment

Materials and Supplies

Travel

Publication Costs/Page Charges

Other Direct Costs

- Lab Analyses
- Consultant Services
- Subcontracting
- Phone/Fax/Photocopy/Postage

TOTALS

(Enter these values on the title/signature page)

8.0 VITA (RÉSUMÉ) GUIDELINES:

| | |
|---------|-------|
| Name | |
| Address | Phone |
| | Fax |
| | Email |

EDUCATION

B.S. (Institution, Year)

M.S. (Institution, Year)

Ph.D. (Institution, Year)

POSITIONS

List each position on a separate line from newest to oldest.

SCIENTIFIC AND PROFESSIONAL ORGANIZATION

List alphabetically each organization on a separate line.

SELECTED PUBLICATIONS

List relevant publications from newest to oldest.

9.0 OTHER FUNDING:

Are you applying for funds for this work to other agencies? _____
If yes, which/how much? _____

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CHECKLIST FOR SUBMISSION OF PRE-PROPOSALS

Pre-Proposal Format:

Margins (minimum): top 1", sides and bottom 0.5"

Font not smaller than: Times Roman 12 pt.

Separate title page

Body: limited to 3 (single sided) pages

Separate budget page

Résumé/vita: 1-page per participant

Logic Model

One Electronic copy submitted as a single WORD or .pdf document

Do NOT:

Include bibliography and /or reference material

Include matching funds

Include letters of support (these are to be submitted with full proposals only)