



2019 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, September 19, 2018
(Local Time at College Park, Maryland)

Expected Funding September 2019

**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 **2019 Request for Pre-Proposals (RFA)** 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 **RFA**. **Extension is an essential component for success and must be integrated into the pre-proposal's project narrative and budget considerations.**

The deadline for submitting Pre-Proposals is Wednesday, September 19, 2018. (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 2019.

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 **RFA**. 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:** 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 AN EXTENSION OR OUTREACH COMPONENT**, which will assist in the development of an outcomes-based project that will change practices or attitudes of the industry, facilitate and assist in information dissemination, and coordinate technology transfer or training to the aquaculture industry throughout the Northeast.
 - Explicit extension goals and objectives, work plan, and budget must be included in the proposal. NRAC requires an electronic copy of Extension publications that result from full-funded projects (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 but if necessary should be shown on the budget sheet. Budget narratives are not required for pre-proposals but total project costs should not exceed \$200,000 and a two year project life cycle without adequate justification

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 2019 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

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 pre-proposal. The PI must be realistic in the Scope of Work.** (e.g., Don’t 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 but if included should 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.

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
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 industry 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.

Ultimately projects should be outcome-based wherein knowledge is gained (short-term), practices or recommendations derived from the project are adopted and/or implemented (intermediate term), and the industry and region gain economically and socially (long-term).

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 requires that all pre-proposals have regional involvement **(individuals and institutions from two or more Northeastern states must participate in any funded projects)** 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. To encourage continued extension application of project results even after a project is completed PI's are encouraged to discuss the extension aspects of their proposal with members of the Northeastern Regional Extension Project before submission of a pre-proposal. 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 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, will not pay student tuition remission costs, and only cover a reasonable amount of the PIs 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. The PC is also responsible that all participants are operating under an approved Institutional Animal Care and Use protocol, if appropriate. 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. An individual may be a PC or PI on more than one proposal.

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
NRAC Coordinator/RFA 2019
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. 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 STATEMENT

TRA-19-1

Goal: Research and demonstrate opportunities for increased profitability.

Statement of the Problem: Aquaculture in the Northeast region includes a vast array of species, systems and industries. NRAC funds projects focused on all aspects of aquaculture relevant to inland and coastal states in the region. Nonetheless, a number of limitations continue to affect the development and growth of aquaculture in the Northeast. NRAC seeks proposals to 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.
- Market research on how to penetrate and/or expand into markets more efficiently using targeted social, economic, cultural and ethnic factors.
- 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 in the commercial sector.
- Improving feeds that result in reduced rearing costs, lowered fish-meal protein inputs, increased survivability, and improved health.
- Research leading to the elimination of knowledge gaps related to closing the life cycle of species with aquaculture value.
- Developing the knowledge-base of infectious and non-infectious diseases to improve health management and improved production **on the farm**.
- Proactive approaches and novel research for industry and managers to mitigate impacts such as harvest closures arising from new or emerging pathogens (HABs, vibrio, etc.).
- Modifying farming and production strategies in response to environmental change.
- Improving methods for reducing labor associated with biofouling and predator control, especially for predators that are invasive, novel, non-endemic, or emergent.

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

Examples may include:

- Novel marketing or value-added strategies
- Energy-efficient systems and alternative energy sources
- Engineering of more efficient and/or labor-reducing systems
- Multitrophic aquaculture including aquaponics, especially in urban areas
- Development of domesticated broodstock

- Reduction in biofouling or predator losses
 - Use of novel or sustainable protein/oil sources
 - Nutritional requirements research
 - Increase consistency of end products.
 - Valuation of “USA Produced” products and exploration of new markets.
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**NRAC 2019 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 2019 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).

Funds Requested

	Funds Requested from NRAC	Matching Funds
Salaries and Wages		
A. Principal Investigators	_____	_____
B. Research Assoc./Postdoctorates	_____	_____
C. Graduate/Prebaccalaureate Students	_____	_____
D. Other Professionals (<u>not</u> 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? _____

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

Do NOT:

- _____ Include bibliography and /or reference material
- _____ Include letters of support (these are to be submitted with full proposals only)