Grant writing 101

The Basic Approach

Identify a need/gap in knowledge
Build team & proposal outline
Aware of funding opportunities
Write & submit
Match needs to funding priorities
Review & revise (& resubmit)

Turning creative ideas into something real & funded!
Addressing/ defining a need

- Problem driven (gap in knowledge)
- Scope of the problem (relevance to stakeholders)
- How to respond?
  - Research
  - Teaching/Training
  - Outreach/Extension
- Scale?
  - Single investigator
  - Small team
  - Multi-institutional
  - Interdisciplinary
- Approximate funding ($) and duration
  - Commodity
  - State
  - Regional
  - National
Funding awareness

Convenience Comes to Federal Grants
Download the Grants.gov Mobile App to search and submit on the go.

Reminder: Federal agencies do not publish personal financial assistance opportunities on Grants.gov. Federal funding opportunities published on Grants.gov are for organizations and entities supporting the development and management of government-funded programs and projects. For more information about personal financial assistance benefits, please visit Benefits.gov.
Funding awareness

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GRANTS LEARNING CENTER

The Grants Learning Center is your gateway to the federal grants world. Bookmark this page and participate in our growing communities on Blog.Grants.gov and Twitter (@grantsdotgov).

Northeast SARE offers the following competitive grant programs:

Graduate Student Research Grant
For graduate students at any Northeast college, university, or veterinary school who want to conduct research on sustainable agriculture topics.
Closed: Apr 19, 2022 5:00 PM (Eastern Time)
LEARN MORE ➤ Get notified when it opens ➤

Farmer Grant
For commercial farmers who want to test a new idea using a field trial, on-farm demonstration, marketing initiative, or other techniques.
Deadline: Nov 15, 2022 5:00 PM (Eastern Time)
LEARN MORE ➤ APPLY ➤
Matching needs to funding opportunities

- Does the topic align with funding program (priority areas)?
- Is the scope of the program appropriate?
- Is the funding level ($) appropriate?
- No secret message in the RFA
Matching needs to funding opportunities

Does the topic align with funding program (priority areas)?

Is the scope of the program appropriate?

Is the funding level ($) appropriate?

No secret message in the RFA

Search SARE Projects Results

Region: Northeast
Project type: Graduate Student
From: 2021
59 projects found
Projects per page: 10 25 50 All

1 2 ... 5 6 Next>

GNE22-297 - Controlling Salmonella on eggs using probiotics and postbiotics.
Salmonella Enteritidis poses a significant threat to the egg safety. Therefore, the proposed study aims to investigate the efficacy of probiotics and postbiotics in wash water in reducing Salmonella on eggs and to develop effective, practical and user-friendly approaches to improve egg safety.

GNE22-277 - Investigating Lobster Byproducts as Soil Amendments for Disease Suppression and Soil Health Improvement in Potato Production
We propose to utilize lobster shell meal, an industry byproduct, as a soil amendment to suppress soilborne diseases and increase yields in potato production systems. This is thought to occur by promoting beneficial microbes and consequently improving soil health.

GNE22-281 - Farmer Engagement with Regenerative Agriculture in New England: Understanding Barriers and Facilitators to Improve Services and Outreach
The purpose of this project is to support the regenerative agriculture (RA) movement in New England through providing extension agencies, agricultural organizations, and policy makers with in-depth insight into the facilitators and barriers faced by farmers as they engage with RA at the farm level.

GNE22-283 - Cultivation of Native Productive Plants in Urban Agroforestry Systems in the U.S. Northeast: Perceptions and Barriers
This project will analyze gardeners’, farmers’, and green industry professionals’ perceptions of urban agroforestry systems...
<table>
<thead>
<tr>
<th>Parts of preparing a proposal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Background (be concise)</td>
</tr>
<tr>
<td>Rationale &amp; significance (justification)</td>
</tr>
<tr>
<td>Objectives linked with <strong>outcomes</strong> (measurable impact)</td>
</tr>
<tr>
<td>Methods &amp; <strong>outputs</strong> (actions) for each objective</td>
</tr>
<tr>
<td>Timeline of objectives (A+B=C) and key personnel</td>
</tr>
<tr>
<td>Access to resources required?</td>
</tr>
</tbody>
</table>
Writing and submitting

Think like a reviewer…what would you like to see?

- Quality science
- Well organized “doable” project
- A compelling story that is easy to read

Focused, critical project plan of realistic scope

- Original ideas with high impact that build on current research
- Sound rationale
- Subject knowledge and technical expertise
- Future directions
Writing and submitting

Text-dense proposals are difficult to read

• Format uniformly – consider use of white space, bold font
• Use figures, diagrams to emphasize key points
• Follow the section organization in the RFA using headings and subheadings provided
Grant writing 101

Writing and submitting

Text-dense proposals are difficult to read. Consider:

- Format uniformly – consider use of white space and bold font.
- Use figures, diagrams to emphasize key points.
- Follow the section organization in the RFA using headings and subheadings provided.

Fig. 2. An iterative, systems approach to understanding and managing bacterial diseases of onion in the U.S. This approach considers all components in relation to the overall goal of onion production. Long-term, highly effective solutions will be achieved by enhancing our understanding of bacterial pathogens of onions in the diverse regions of production across the USA (Objective A), and using that knowledge in an iterative manner to develop management programs that engage the complex interactions of the crops, pathogens, grower production and storage practices, economic assessments, and stakeholder priorities, expertise, and feedback (Objective B).
Writing and submitting

Clearly label objectives, methods & deliverables

• **Who** will work on **what** objectives and **when** (Gannett chart)
### Writing and Submitting

- **Grant writing 101**
  - **Who will work on what objectives and when (Gannett chart)**
  - Clearly label objectives, methods & deliverables

### Table 1. Timeline for proposed research and extension activities to address onion bacterial diseases in the U.S.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Oct-Dec</td>
<td>Jan-Mar</td>
<td>Apr-Jun</td>
<td>Jul-Sep</td>
</tr>
<tr>
<td>A1. Onion field &amp; storage surveys</td>
<td>NY+PA, MI, CO+UT, ID+OR, OR+WY</td>
<td>NY+PA, MI, CO+UT, ID+OR, OR+WY; sampled surveys in GA, MI</td>
<td>NY+PA, MI, CO+UT, ID+OR, OR+WY; directed surveys in GA, MI</td>
<td>Publish survey results (2-3 journal articles)</td>
</tr>
<tr>
<td>A1. National onion bacterial strain collection</td>
<td>7 Regional Labs isolate, clean, PCR assay, &amp; sequence bacteria; ship isolates to GA</td>
<td>7 Regional Labs isolate, clean, PCR assay, &amp; sequence bacteria; ship isolates to GA</td>
<td>Isolates available publicly</td>
<td></td>
</tr>
<tr>
<td>A2 &amp; A3. Pathogenomics, diagnostic tools</td>
<td>UGA receives bacterial strains from collections</td>
<td>UGA lab develops national collection of curated onion bacterial strains representing 7 regions of production over 3 seasons, and a subset tested for pathogenicity on onion</td>
<td>Field test molecular diagnostic tools; onion bacterial community analyses</td>
<td>Write genotypic journal publications (2-3)</td>
</tr>
<tr>
<td>A4. Onion phenotypic screening</td>
<td>Lab, GH phenotypic screening methods tested in GA</td>
<td>Lab &amp; GH phenotypic screening in GA</td>
<td>Write lab-GH phenotypic screening journal article, extension article</td>
<td>Write journal publications (2-3)</td>
</tr>
<tr>
<td>B1-B5. Core management practices</td>
<td>Regional lab, GH, &amp; field trials on production practices: irrigation, fertility, pesticides, cultural practices, postharvest treatments</td>
<td>Regional lab, GH, &amp; field trials modified based on results, SAP feedback from Season 1, economic assessment, &amp; modeling</td>
<td>Regional lab, GH, &amp; field trials modified, SAP feedback from Season 2, economic assessment, &amp; modeling, write journal articles</td>
<td>Journal publications (5-8), integrate economics, develop management strategies (SAP guidance)</td>
</tr>
<tr>
<td>B6. Disease modeling</td>
<td>Collect microclimate &amp; disease data</td>
<td>Analyze microclimate &amp; disease data, model disease risk</td>
<td>Share results, collect microclimate data &amp; disease risk</td>
<td>Analyze data for risk prediction &amp; modeling in different regions</td>
</tr>
<tr>
<td>Economic assessments</td>
<td>Survey growers &amp; packers</td>
<td>Economic evaluation of season 1 trials, including stakeholder advisory panel (SAP) input</td>
<td>Economic evaluation of season 2 trials, including SAP input</td>
<td>Economic survey of season 3, SAP input, adoption survey</td>
</tr>
<tr>
<td>Extension &amp; outreach</td>
<td>Onion Field Day, grover meetings in each state with stakeholder</td>
<td>Field, lab &amp; GH results reported, Allonnet + extension bulletins drafted</td>
<td>Field, lab &amp; GH results reported, Allonnet + extension bulletins on 2 years of trials</td>
<td>Field, lab &amp; GH results reported, Allonnet + extension bulletins on 3 years of trials</td>
</tr>
<tr>
<td>Travel</td>
<td>Team workshop in GA</td>
<td>NOA, W3006, or NARC meeting with SAP</td>
<td>NOA, W3006, or NARC meeting with SAP</td>
<td>NOA, W3006, or NARC meeting with SAP</td>
</tr>
</tbody>
</table>
## Grant Writing 101

### Objectives

- **Who will work on what objectives and when (Gannett chart)**
  - Clearly label objectives, methods & deliverables

### Table 1: Timeline for proposed research and extension activities to address onion bacterial diseases in the U.S.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Year 1 (Sep ’21-Aug ’22)</th>
<th>Year 2 (Sep ’22-Sep 23)</th>
<th>Year 3 (Sep ’23-Sep 24)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soil collection and testing for HT soilborne diseases in OH, PA, and VA</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Milestone: Growers notified of soilborne disease risk and management recommendations provided.</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>On-station trials to evaluate ASD impacts on soil fertility</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td><em>Milestone:</em> ASD fertility trials established and evaluated.</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ASD MBTs (3 &amp; 4)</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Milestone:</em> Growers learn to apply ASD</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>- ASD trials installed and completed</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant/soil health evaluations after ASD (3)</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Milestone:</em> Determine how ASD affects yield and disease in tomato in three regions</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Outcome Mapping (4)</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Milestone:</em> Track changes in participants’ behaviors and actions</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extension outreach in OH, PA and VA (4)</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>
Writing and submitting

Review evaluation criteria

• What criteria are being used to evaluate your proposal?
• How are the criteria weighted?
B. Evaluation Criteria
NIFA will use the following criteria to evaluate Applied Research and Development Program applications responding to this RFA:

**Applied Research (single function) Project Applications**

1. **Technical Merit of Applied Research (single function) (45 points)**
   - This criterion will be used to assess and advance goals of the CPPM ARDP.
   - a. The description and documentation of the applied research problem.
   - b. When model systems are used, systems to organisms of importance.
   - c. The conceptual soundness of the approach and hypothesis.
   - d. The description of the suitability of the approach, procedures, and methods.
   - e. Preliminary data submitted for the proposed research.
   - f. The level of scientific originality and probability of project success.
   - g. Description of the suitability of the project to the Department mission.

2. **Qualifications of Project Personnel, Adequacy of Facilities, and Project Management (20 points)**
   - This criterion relates to the adequacy of the number and qualifications of key personnel who will plan and carry out the proposed project as well as the institution(s) capability to perform the project. Elements include:
     - a. Qualifications of applicants (individual or team), performance record, and potential to conduct the proposed project and achieve research objectives.

3. **Project Relevance (35 points)**
   - This criterion will be used to assess the likelihood that the proposal will advance goals of the CPPM ARDP program. Elements include:
     - a. Adequate documentation that the proposal is directed toward specific research program area priorities identified in this RFA.
     - b. The description and documentation of identified stakeholder needs for the proposed work.
Writing and submitting

Give a near-final draft to a colleague for review

• Do not underestimate how long the mechanics will take
• Start with due date to your Office of Grants and Contracts and work backwards to set a timeline
Review reviews, revise, resubmit!

- ~10 to 20% applications are funded (see RFA)
- First-time applications = lower success rates
- “Reviewers didn’t get it” syndrome
- Use reviews to improve idea, improve communication, address theme
- Consistently bad reviews? Change is needed
CoAS Proposal review criteria (rubric)

- Background information that frames the context of the proposal
- Clarity of hypothesis or statement of problem
- Whether the procedure/methodology addresses the objectives of the proposal
- Clarity of expression – writing style and proposal organization

Overall score:
- 10 = definitely fund
- 9 = fund
- 8 = fund with conditions
- 7 = fund if resources allow
- 6 = fund if resources permit
- 5 = fund if resources permit and high need
- 4 = fund if resources permit and high need and high benefit
- 3 = fund if resources permit and high need and high benefit and high impact
- 2 = fund if resources permit and high need and high benefit and high impact and high cost
- 1 = do not fund
**Best practices**

- Read the RFP multiple times – highlight important info
- Follow the rules & contact program admin with questions
- Be informative but concise; educated layperson reviewer
- Justify budget and be realistic (don’t over promise)
- Allow plenty of time
- If not funded, study reviews and be persistent!
Grant Writing 101

Questions?
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