

California Department of Food and Agriculture Fertilizer Research and Education Program

2020 SPECIAL REQUEST FOR FULL PROPOSALS

The California Department of Food and Agriculture's (CDFA) Fertilizer Research and Education Program (FREPP) is accepting full proposals for projects that will begin in July 2020. This Special Request for Proposals seeks high-quality research that determines nitrogen accumulation and removal coefficients for specific crops grown in California's Central Coast region (including Santa Cruz, Santa Clara, San Benito, San Luis Obispo, Santa Barbara and Ventura Counties).

Currently, the Central Coast Regional Water Quality Control Board regulates waste discharges from irrigated agricultural lands under Agricultural Order 3.0, which is scheduled to expire January 31, 2021. The Regional Water Board is drafting Agricultural Order 4.0.

Under Regional Board regulations, growers will be required to report the amount of nitrogen applied to each crop and the total nitrogen removed in the harvested crop. There are two components to calculating nitrogen removed: the amount of harvested crop removed from the field and the nitrogen removal coefficient; the amount of nitrogen contained in a unit of crop removed from the field at harvest. When multiplied, the amount of harvested crop removed from the field and nitrogen removal coefficient will estimate the amount of nitrogen removed from the field.

The Regional Board has proposed to work with stakeholders, including CDFA, to establish removal coefficients for all crops grown in the region.

PRIORITY FUNDING AREA

The following crops have been identified as having little or no basis in research for establishing a nitrogen removal coefficient in Central Coast cropping systems.

Nitrogen Removal Coefficients of Interest (sorted by priority, highest to lowest)

- | | |
|-------------------------------|---------------------------------------|
| 1. Lettuce (all types) | 12. Blueberry |
| 2. Onions | 13. Radicchio |
| 3. Arugula | 14. Frissee |
| 4. Broccolini | 15. Endive |
| 5. Pepper, Fruiting, Jalapeño | 16. Shallots |
| 6. Beets | 17. Chard, Swiss Bunch |
| 7. Chard, Baby | 18. Tung Ho (Edible
Chrysanthemum) |
| 8. Fennel | 19. Yam (Leaves) |
| 9. Leek | 20. Gai Choy (Mustard Greens) |
| 10. Parsley | 21. Chinese Celery |
| 11. Radish | |

This request focuses on 21 priority crops with little or no basis in research for establishing a nitrogen removal coefficient appropriate to Central Coast Cropping Systems. Proposals should cover no less than 10 crops and priority will be given to proposals that address all 21 priority crops.

Additionally, the Regional Board has identified over 50 crops as having research that sufficiently quantifies nitrogen removal coefficients. This special call for proposals encourages projects researching nitrogen accumulation and removal values for these crops as well. For proposals addressing these crops, include a strong justification for the need to revise the removal and accumulation values. See justification section for further guidance.

Multiple full proposals may be accepted from different combinations of applicants. Proposals leveraging other sources of funding are strongly encouraged and welcomed.

WHO MAY APPLY

Any individual or group may submit a proposal. However, given the scientific needs of this grant solicitation, priority will be given to research institutions (e.g. University of California, California State University, USDA-Agricultural Research Service, and similar institutions as well as private research firms). Coordination among research institutions and private firms to leverage expertise is strongly encouraged.

PREPARING YOUR PROPOSAL

Please thoroughly read and adhere to all submittal requirements or your proposal will not be accepted.

Full proposals must include Sections A through I as described below. Sections A through G must be submitted in Microsoft Word format (doc/docx) and **must not** exceed 15 pages (including references). Section H: Budget Template must be submitted in Microsoft Excel format (xls/xlsx) using the provided template. Section I: Appendices may be submitted in Microsoft Word format (doc/docx) or Adobe format (pdf) and do not count towards the page limit.

If you have questions about formatting or submitting your proposal, please contact FREP staff at (916) 900-5022. To ensure fair competition, FREP staff does not provide guidance on the development of proposals.

FORMATTING INSTRUCTIONS

For consistency and uniformity, use **Arial font** throughout the proposal as follows (Proposals not meeting formatting requirements will be returned to the applicants):

- 12-point bold for project title and section headings.
- 12-point normal or regular font for body text.
- Font color must be black, except for email addresses and URL's, which may be blue.
- Do not use borders, logos, or a letterhead.
- Set paragraph line spacing to single space. Double space between paragraphs, before and after section headings, and before and after subheadings. Do not indent the first lines of paragraphs.
- Add page numbers as a footer; align right, and do not include any text in footers
- Avoid using text boxes for table and figure captions.
- Tables occupying more than one page should have separate heading rows on each page (split table).

SUBMITTING YOUR PROPOSAL

Submit an electronic version of your full proposal to: FREP@cdfa.ca.gov

Full proposals are due by 5:00 p.m. on January 31, 2020. Proposals that are incomplete, late, do not comply with formatting requirements, or exceed 15 pages (excluding Sections H and I) will not be considered for funding. Full proposals must be submitted via email; mailed or faxed proposals will not be accepted. FREP staff will reply with a confirmation email when the full proposal is received; contact FREP staff by calling (916) 900-5022 if you have not received a confirmation email within two business days of your submission. FREP is not responsible for incomplete email transmissions.

PROPOSAL REVIEW AND EVALUATION

CDFA may reject any proposal that is incomplete or contains irregularities. CDFA may waive an immaterial deviation from the formatting or content requirements. Waiver of an immaterial deviation shall in no way modify the Request for Proposal documents or excuse the proponent from full compliance with the grant requirements, if the proponent is awarded the grant.

Proposals will be circulated to peer reviewers with relevant expertise for their evaluation and comment. Those comments will be provided to the Fertilizer Inspection Advisory Board's Technical Advisory Subcommittee (TASC) to assist them in their review. TASC will evaluate the proposals, using the same evaluation and scoring criteria. Authority for final funding approval lies with the CDFA Secretary.

AWARD NOTIFICATION/GRANT PAYMENT

You will be notified by CDFA, whether your project was selected for funding, on or before March 31, 2020. If your project is selected for funding, please note that work on the project cannot begin until the grant agreement goes into effect on July 1, 2020 or until it is signed by all parties, whichever is later. Grant payments are subject to receipt and acceptance of deliverables as defined in the Scope of Work.

GRANT TIMELINE

Proposals due.....	January 31, 2020
Award notification.....	March 31, 2020
Project start date.....	July 1, 2020

REPORT SECTIONS

A. Cover Page

1. Project Title
Provide a unique and concise name for the proposed project. The title should accurately identify the proposal content. If the proposal is a continuation of a previous project, please keep the title consistent.
2. Project Leader(s)
Specify each project leader's name, title, affiliation, mailing address, telephone number, and email address. If there is more than one person for the project, list them using the column function. *A one or two-page resume, a list of recent publications, and a description of current research/outreach activities must be included for each project leader under Section I: Appendices.*
3. Cooperator(s)
Specify each cooperator's name, title, affiliation, mailing address, telephone number, and email address. *A letter from each cooperator must be included, under Section I: Appendices, describing their role in the project, estimated time commitment, and a statement of agreement to participate in the project. Do not include a cooperator's name on the proposal unless a support letter is included with the proposal at the time of submission.*
4. Supporter(s)
Specify organizations and/or individuals that support the objectives and approach of the project but who are not providing or receiving funding. *A letter from each supporter must be included under Section I: Appendices explaining the rationale for their support. Do not include a supporter's name on the cover page unless the support letter is included with the proposal at the time of submission.*
5. CDFA Funding Request Amount/Other Funding
Provide funding request amount (\$) from CDFA and amount committed from

extra-mural or in-kind sources for each year of the project. Specify organizations that have committed funding to this project including funding amounts, contact names, addresses, and telephone numbers.

6. Agreement Manager

Specify the person who will manage the grant on behalf of the recipient (i.e. UC Regents, Office of Sponsored Research, etc.). Include the organization/entity, grant manager name, phone number, email address, and mailing address.

B. Executive Summary (not to exceed one page)

Objectives and Approach

State specific project objectives, describe the approach that will be employed.

C. Justification

Related Research Background and Literature Review

Describe previously published or conducted research related to the approach and methodology that will be used to evaluate nitrogen accumulation and removal values for the crops being studied.

For proposals addressing crops that have not been identified by the regional board as having research gaps, include a strong justification for the need to revise nitrogen accumulation and removal values.

D. Objectives

Provide a concise and complete description of the crops proposed for study and the approach being applied.

E. Work Plans and Methods

1. Work Plan

Provide a work plan for each year. Organize the work plan into project tasks and sub-tasks, which are units of work designed to achieve the specific project objectives. Each task should be numerically identified with a descriptive title and should include a detailed description of the activities and methods. Describe interim and final task products and completion dates or milestones.

2. Methods

Summarize the methods to be employed, indicate data to be gathered, parameters to be measured, and sampling protocols, and methods of statistical analysis to be used. Sampling procedures, measurements, and methods of analysis should be cited with relevant references.

A minimum of two years of data should be collected and samples should be taken across at least ten fields. The sampling sites should represent the geographic distribution of the regions/climates where the crops are grown.

3. Experimental Site

Provide a description or graphical representation of the experimental site(s).

F. Project Management and Evaluation

Management

Describe the role of the project leaders and cooperators and briefly explain how the work of the various participants will be coordinated.

G. Budget Narrative

Provide a detailed narrative of your proposed budget with a start date of July 2020. Explain the following:

a. Personnel Expenses

Provide classification level, percent of time based on full-time salary/wages, benefits, employment period, and name of individual to be hired, if available. For University of California and other public agencies and universities, specify if other funds come from existing staff salary, are extra-mural, or are in-kind. If funds are from staff salary, specify the amount on a percentage of full time equivalent-basis.

b. Operating Expenses

Itemize and justify the following operating expenses:

- *Supplies*: Itemize and justify all supplies to be purchased.
- *Equipment*: Itemize and justify all equipment purchases. During the grant period, titles to equipment purchased with CDFA funds will vest with the State. CDFA will only authorize expenditure for equipment (equipment with a life expectancy greater than one year or with a value greater than \$5000) on a pro-rated basis. After the grant period, the state may transfer ownership or allow the grantor to purchase such equipment. The grantor must maintain inventory records for such equipment.
- *Travel*: Itemize the number of trips, estimated mileage, destination(s), and identify who will be traveling. CDFA will reimburse travel expenses at the rates specified by the California Department of Personnel Administration. Only travel expenses to and from the project site(s) or to conduct outreach activities within California will be covered.
- *Professional/Consultant Services*: Identify and explain any and all work or services to be sub-granted. Sub-granting will only be allowed with the expressed written permission of the State.
- *Other Expenses*: Identify and explain any additional expenses not covered by the above categories.

c. Other Funding Sources

List each additional organization contributing funding to the proposed project. Specify funding to be contributed each year. If the proposed project has been or will be submitted to or funded by a grant program other than FREP, identify

the grant program(s), the entity administering the program(s), and the amount(s) of grant funds requested/awarded. Describe how the activities supported by FREP funding will differ from and/or supplement the other grant program(s) rather than duplicate those funding efforts.

d. Prior Year Projects

If the proposed project builds upon a previously funded FREP project, indicate the Agreement Number(s), and explain how the new proposed project complements or builds upon the previous project's efforts, the results of the completed work, and the long-term quantifiable effects of these results.

H. Budget Template (not included in the 15-page maximum)

Prepare a budget table for the project using the attached FREP Project Proposal Budget Template Excel spreadsheet. The template uses formulas to automatically generate totals as numbers are entered in the fields; *do not alter the formatting or formulas in the un-shaded cells*. An example of a completed budget is included with the template. Include a project start date of January 2021 and show amounts requested for each of the following categories.

a. Personnel Expenses

- *Salary*: For each individual working on the project, list the name, percent time based on full-time salary, and their role in the project in the salary section.
- *Benefits*: Percentage of benefits (fringe) to be paid may be listed in the benefits section.
- *Indirect Costs*: Ten percent is the maximum indirect costs allowed. If this number is altered, the proposal cannot be accepted, and it will be returned to you to be corrected. If the corrected budget is not returned before the due date of February 15, 2020, the proposal will not be considered for funding.

b. Operating Expenses: Enter the total amount requested for each year for the following operating expense categories. *All expenses must be itemized and justified in Section G: Budget Narrative.*

- Supplies
- Equipment
- Sample analysis
- Travel
- Professional/Consultant Services
- Other Expenses

I. Appendices (not included in the 15-page maximum)

1. Project Leaders

Include a two-page resume and list of recent publications, and a description of current research, education, and/or training activities. Also provide information on all current, planned, pending, and recent projects, whether there is a specific time commitment, and how they will impact the proposed project.

2. Cooperators

Include a letter from each cooperator describing their role in the project, estimated time commitment, and statement of agreement to participate in the project.

3. Supporters

Include a letter from each supporter explaining the rationale for their support.