The Foundation for Food and Agriculture Research (FFAR) is seeking applications through our Crops of the Future Consortium (COTF). COTF is a public-private collaborative formed by FFAR to solve research gaps common across the Ag industry. We are seeking innovative and potentially revolutionary research focused on ensuring under-appreciated crops also benefit from recent advances and emerging technologies for genotype-independent regeneration of fertile plants to foster application of rapid breeding methods such as in vitro double haploid production and genome editing. For 2020, FFAR anticipates funding up to two meritorious and transformative applications.

**What we are looking for**

We aim to support research that enables transfer of advanced breeding methods to accelerate the development of diverse crop species that are well suited to both sustainable agriculture and improved human nutrition. It is recognized that one of the biggest bottlenecks to applying such methods is efficient regeneration of different genotypes.

In accordance with the above intent, the successful research project should focus on a genotype-independent technology/approach that would be applicable to multiple crop species. Solutions that are customized to a single species or select genotypes are not considered within scope.

We are open to considering all proposed crop species, providing they meet the criteria of i) well suited for sustainable agriculture; ii) have value to human nutrition; iii) can be considered an “under-appreciated” crop; and iv) have not yet benefited from rapid breeding methods. Under this definition, a selected crop may have experienced some progress in regeneration research yet would still be eligible provided it meets all four of the above criteria.

We are requesting applications that clarify a) which crops will be utilized in the research and why; b)
background on why species- or genotype-dependent regeneration limits development of these crops; c) the general technical approach and/or proposed system to achieve regeneration for advanced breeding methods; d) commercial potential for the selected crops; d) how could the discovery/learnings benefit other crops beyond those directly studied; and e) who would be involved in the project, project length and estimated total budget.

**Eligibility**
The Foundation for Food and Agriculture Research welcomes applications from institutions of Higher Education, non-profit and for-profit organizations, government-affiliated researchers, and domestic and international organizations.

Any individual(s) with the skills, knowledge, and resources necessary to carry out the proposed research as Program Director(s)/Principal Investigator(s) is invited to work with his/her organization to develop an application for support.

**Award Information**
- Project duration: Up to 36 months
- Proposal funding range: $250,000 - $750,000
- Matching Funds are not required for this program

**Reasonable budgets clearly work in favor of the applicant. Budgets that are not commensurate with proposed work or poorly justified will likely have a negative impact on the overall evaluation of the application.**

- The number of projects selected for funding may vary.
- Indirect Expenses: A maximum of 10% of the total award may be used for indirect costs. FFAR’s indirect cost allotment is not an indirect cost rate applied to the total modified direct costs but instead it is an overall allotment from the Total Funds Request, also known as the Total Project Costs, to be used for IDC. This means 90% of the total funds requested must go directly to the proposed research. For example, if you request the maximum, the total direct cost available to the project is $750,000. 1 ÷ $682,000. Indirect costs cannot exceed 10% of the total.
- Indirect costs cannot exceed 10% of the total budget (FFAR contribution+ grantee’s matching funding, if any). Please carefully review our IDC policy in the Instructions Tab of the budget template.
- Estimated Number of Awards: To be determined. The number of awards depends on the quality and the total funds requested of successful application. The number of applications funded is left totally to the discretion of FFAR including choosing not to fund any applications under this opportunity.

Anticipated Award Date: Fall 2020

**Application Components**
Applicants are required complete the online application form. The uploaded application should be formatted using Calibri or Times New Roman, 11pt font, single spaced, 1-inch margins. Figures may be included as a separate file. If you have questions, please contact the FFAR Grants Management staff at grants@foundationfar.org.
To view the application, please download the application template [here](#). Note that all applications must be submitted through FFAR's grant management system to be evaluated.

**Full Application Components**

*Required components*

- Project title (*up to 250 characters*)
- Proposed budget
  - Total FFAR request
  - Total optional matching funds
  - Total proposed budget (*FFAR funds + Optional Matching Funds*)
- Key Personnel
- Public abstract (*up to 500 words*)
- Project Executive Summary (*up to 1,000 words*)
- Project Description (*up to 1,665 words*)
- Innovation to be developed or accelerated (*up to 665 words*)
- Goals and objectives (*by year; up to 1,000 words*)
- Anticipated outcomes or outputs (*up to 1,000 words*)
- Budget justification (*up to 1,330 words*)
- Data Management Plan (*up to 500 words*)
- Barriers to adoption of your research outcome(s) (*Note: Collaboration on this issue with socio-economic scientists is highly encouraged.*) (*up to 665 words*)

*Organization Assurances*

- Research involving human subjects
- Research involving vertebrate animals
- Research involving Recombinant DNA
- Research involving National Security implications
- Research involving hazardous materials
- Research involving human fetal tissue
- Research involving NEPA review

**Attachments**

- Required Attachments
  - [Budget Form](#)
  - [PI and Key Personnel Biosketch](#): three-page limit per individual listed as PI or key personnel in the project
  - [Current and Pending Support Form](#): complete for everyone listed as PI or Key personnel on the project
  - Project timeline (by year)
  - References cited
  - 5-slide summary/description of project

- Optional attachments to support project description: This section should not be used to circumvent the page/word limit for the Research Program Plan Section.
Letters of Support: Applicants may provide letters of institutional, collaborator, or stakeholder support for the proposed project, especially from matching funders. Please combine all letters of support into a single PDF document before uploading as an attachment.

Graphics, Figures, Equations, and Tables: The textbox for the Research Program Plan does not support equations, tables, graphics, and figures. Applicants may upload a PDF document with graphics, figures, tables, or a list of equations to support the research program plan. **Five-page limit.**

Application Submission Guidelines
Applications must be submitted through FFAR’s online application receipt system. If you are a new user, register for an account by clicking the green “Register” button at the top right corner of the home page. You will receive a confirmation email to activate your account before you can sign-in to your account. Once you log in, click on the corresponding program to start your application.

Only applications submitted through this portal will be considered eligible for evaluation. FFAR will not accept applications submitted by any other medium. There is a two-hour grace period for all deadlines. **Applications that are not submitted by the deadline or within the grace period will not be accepted. To be fair to all our applicants, FFAR cannot grant an extension to applicants who missed the deadlines posted in the Key Dates section.**

Application Review Process

*Full Application Review*
Applications will be reviewed using a two-stage peer review process: (1) External Peer Review, and (2) COTF funders review. In the first review stage, applications will be evaluated by an independent, external peer review panel of scientific experts using the application review criteria below. In the second review stage, applications judged to be most meritorious by external peer review panels will be evaluated and recommended for funding by the COTF funders based for best fit with the program priorities. All reviewers are required to read and acknowledge acceptance of FFAR’s Conflict of Interest Policy and Non-Disclosure Agreement. We make reasonable efforts to ensure that applications are not assigned to reviewers with a real or apparent conflict with the applicant or project personnel. Reviewers with a conflict of interest are recused from evaluating or participating in the discussions of applications with which they have a conflict. Each stage of the review is conducted confidentially, and as such, FFAR is responsible for protecting the confidentiality of the contents of the applications. FFAR’s Executive Director will approve each grant award recommendation made by the COTF funders.

*Review Criteria*
Full applications are evaluated based on scored primary review criteria. The bullets under each criterion may serve as a guideline to applicants when writing their applications, and as a guideline to reviewers on what to consider when judging applications. The bullets are illustrative and not intended to be comprehensive. Reviewers will evaluate and score each primary criterion and subsequently assign a global score that reflects an overall assessment of the application. The overall assessment will not be an average score of the individual criterions; rather, it will reflect the reviewers’ overall impression of the application. Evaluation of the scientific merit of each application is within the sole discretion of the peer reviewers and they may raise additional factors to consider that are not covered in the bullets for each
Primary Review Criteria
Primary criteria will evaluate the scientific merit and potential impact of the proposed project. Concerns with any of these criteria potentially indicate a major flaw in the significance and/or design of the proposed work. Examples of primary review criteria are: Novelty, Innovation, and Originality; Feasibility; Impact and Outcome.

Novelty, Innovation, and Originality (50%)
- Does the application adequately discuss the applicability of the proposed solution to the challenge posed by the RFA?
- Has the applicant addressed that the research would benefit under-appreciated crops?
- Has the applicant demonstrated that this research has not been done elsewhere, and that this research accelerates the development of a genotype-independent technology/approach that would be applicable to multiple crop species?

Feasibility (30%)
- Are the aims and objectives of the proposed project outlined clearly?
- Are the methods outlined to achieve the project’s aims feasible?
- Are the methods appropriate?
- Does the research team have the necessary personnel, qualifications, and effort levels to complete the proposed research?
- Are the timeline and budget appropriate for the proposed work?
- Did the applicant identify potential risks to successfully complete the research goals/objectives and propose to address them?
- Is the data and results management plan outlined by the applicant adequate?

Impact and Outcome (20%)
- Did the research team outline tangible outcomes and potential downstream implications of this project?
- Is the proposed research well suited for sustainable agriculture?
- Will it have value to human nutrition?
- Will the applicant train the next generation of food and agriculture research scientists, and if so, how?

Award Administration
Selection Notice
Following the full application review, the principal investigator and the authorized organization representative listed on the project will be officially notified by email whether (1) the application has been selected for funding pending award negotiations, or (2) the application has not been selected funding. If an application is selected for funding, the Foundation for Food and Agriculture Research reserves the right to request additional or clarifying information for any reason deemed necessary, including, but not limited to, matching funds, or other budget information. Potential grantees are free to accept or reject the Grant Agreement as offered.

Award Notice
FFAR notifies applicants of whether they are selected for funding through email. The notice does not constitute an award or obligate funding from FFAR until there is a fully executed Grant Agreement.

Grant Period(s)
Upon receipt of the Grant Agreement, the potential grantee should note the Start Date and the End Date. Grantees may only use FFAR funds on project expenditures on or after the Grant Agreement is fully executed, or with prior approval of pre-award expenditure. Charging expenditures to the grant prior to the fully executed date is strictly prohibited. Likewise, grantees may not use FFAR funds after the End Date except to satisfy obligations to pay allowable project costs committed on or before that date. Grantees may have up to the last day of the month of expiration to fulfill obligated expenses.

Once the Grant Agreement is fully executed, the Start Date cannot be changed. The End Date may be changed with a written approval of a no-cost extension request by FFAR. If a no-cost-extension request is approved, FFAR will issue an amendment to the Grant Agreement.

If the grantee requires additional time beyond the Grant Period and the established End Date to assure adequate completion of the original scope of work within the funds already made available, the grantee may request a one-time no-cost extension of up to 6 months. The request must be submitted to FFAR at least thirty (30) days prior to the End Date of the grant. The request must explain the need for the extension and include an estimate of the unobligated funds remaining and a plan for their use. This one-time extension will not be approved merely for using the unexpended funds.

Post-award Management
Reporting Requirements
After a grant is conferred, the grantee shall provide an annual financial report to FFAR showing grant expenditures to date. The grantee shall also provide an annual progress report to FFAR showing activities being carried out under the grant, including but not limited to project accomplishments to date and grant expenditures. Within 30 days of completion of all grant activities, the grantee shall provide a final progress report. The final progress report should address the original objectives of the project as identified in the application, describe any changes in objectives, describe the final project accomplishments, and include a final project accounting of all grant funds.

Scientific Integrity
FFAR’s ability to pursue its mission to build unique partnerships to support innovative science addressing today’s food and agriculture challenges depends on the integrity of the science on which it relies. A fundamental purpose of FFAR is to facilitate the advancement of knowledge and the application of the science to address challenges relevant to the FFAR’s mission. All FFAR grants must be conducted with the highest standards of scientific integrity.

Grant Terms and Conditions
The Foundation for Food and Agriculture Research expects applicants to have reviewed the COTF Grant Agreement prior to applying to ensure that the applicants are aware of the applicable terms under which the grant is offered. FFAR will only entertain potential modifications to the Grant Agreement under the most exceptional circumstances. Successful
applicants are strongly encouraged to sign the Grant Agreement as presented.

Contact Information
Technical Help Contact
**Mon–Fri:** 8AM EST – 8PM EST, **Weekends:** 10AM EST – 6PM EST
**Phone support upon request Mon–Fri:** 9AM EST – 7PM EST
Email: support@smapply.com

Grants Questions Contact
Email: grants@foundationfar.org

We only accept scientific, programmatic and/or grants inquiries by email. We strive to respond to inquiries within two business days, but our response time depends on the volume of questions received and the complexity of the questions asked. Please note that we do not monitor this mailbox on evenings, weekends, or federal holidays.