Request for Proposals 2020
Automated Plant Phenotyping Research Endowment
Corn

Introduction and Expectations

The Indiana Corn Marketing Council (ICMC) has made a long-term commitment to support research at the Indiana Corn and Soybean Innovation Center (Agronomy Center for Automated Phenotyping and Seed Processing Laboratory) at Purdue University. This research endowment is designed to support path-breaking research for new innovations in automated phenotyping and application of these technologies for improvement of corn. These include new technologies/sensors for field scale measurements of plants, data algorithms, or other new innovations that enable rapid detection of commercially important traits in plants, disease monitoring, insect infestation, etc. with a specific focus on corn.

The endowment provides $50,000, including 15% IDC, annually to support pilot research that should generate new ideas that have not yet been funded by other sources and can be leveraged into additional funding. ICMC will have first right of refusal for an exclusive license to any intellectual property generated as a result of this funding. The grant program supported by this endowment will fund early-stage, high-potential research projects focused on priority issues and technologies.

Awarding of this grant will be made based on its scientific merits as determined by a review panel with final approval from ICMC. The research should be completed within one year of the approval date and a final report submitted to Purdue University within 60 days of the completion date. Expected outputs may include: Intellectual Property (e.g., patents, PVPs, etc.), peer-reviewed research and Extension publications, presentations at Field Days and workshops, commodity organization meeting presentations, and materials incorporated into student curricula.

Eligibility

The project leader must be a faculty member (research, clinical, tenured, or tenure-track) in any college at Purdue University.

Proposal Guidelines

The grant proposal must include the following:

1. The **Cover Page** includes: the project title, project leader contact information (campus address, email, telephone) and the names and email addresses of other personnel.
2. The **Proposal** should use either Arial 11 or Times New Roman 12 font with one-inch margins. The proposal may be single-spaced and **must** include the following labeled sections:

a. **Abstract:** A concise summary of the proposed research (<150 words)

b. **Proposed Research** (no more than 3 pages) to include:

   i. **Problem statement**: Clearly state the issue to be addressed by the proposed research.
   ii. **Objectives and rationale**: What is to be accomplished and why is this important to the Indiana corn industry
   iii. **Materials and Methods**: Describe how the proposed research will be designed and conducted to achieve the research objectives. If students are involved, clearly indicate their role and contribution to the proposed research.
   iv. **Summary and Conclusions**: What is the anticipated impact or application of the proposed research?
   v. **Metrics:** How will you quantify or measure the success/impact? The metrics could be how the information generated can support a competitive extramural grant proposal or generation of Intellectual Property. If the end point is a start- up company or Intellectual Property, identify how additional funding will be obtained.

c. **References**: Include the name(s) of the author(s), article title and journal, book title, volume number, page numbers, and year of publication. (one page)

d. **Curriculum Vitae**: The CVs for the Project Director and Co-PDs must be included showing the name and email address, educational attainment, positions, products (5 most relevant publications, patents, data sets, and/or copyrights), and related activities (research training, development of research tools/laboratory or field procedures, data- base management, involvement of under-represented groups, or other attributes that would enhance the success of the proposed research.) (one page)

3. **Budget:** Please provide approximate expenses up to $50,000 including the 15% ICMC Master Agreement IDC. Include a one-page or less description of the major expenditures. Do **NOT** submit a COEUS budget. A grant proposal selected for funding will be required to provide current and pending support to verify that the proposed project is not funded by another source. The start date will be July 1, 2020.

Submission Guidelines

1. The grant proposal must be saved as a pdf. The file should be named: *ICMCAutomatedProjectleaderlastname*
2. The pdf file should be submitted electronically no later than **5:00 pm Tuesday, January 21, 2020** via https://purdue.ca1.qualtrics.com/jfe/form/SV_3QQT5FWNaFSPJTD.

Evaluation Criteria

	Points
Relevancy to the corn industry	25
Scientific soundness; appropriateness of methodology; feasibility; team qualifications	25
Innovation/creativity	40
Metrics and measurement of impact	10
Total	100

Use of Funds

The grant funds may be used for:

- Expendable research materials and supplies
- Workshop, webinars, and other Extension products
- Peer-reviewed research and Extension publications and website development
- Undergraduate or graduate student support, technicians, or post-docs. (Note: Since this is an annual grant, there is no guaranteed student or other personnel support beyond one year.)
- Research related travel
- Faculty salary support is not allowed.

Final Report

A Final Report must be submitted within 60 days of the project completion date, which is one year after the date of project award.

Acknowledgements

All publications, posters, websites, and field day or workshop presentations must include the following:

Questions

Any questions associated with this Automated Plant Phenotyping Facility Research Endowment: Corn should be directed to Dr. Marshall A. Martin, Senior Associate Director of Agricultural Research and Graduate Education (765-494-8365 or marshallmartin@purdue.edu). Any questions related to the Automated Plant Phenotyping Facility should be referred to Jason Adams (765-494-0564 or adams314@purdue.edu).