Pictured above: Andersons location – White Pigeon Grain Elevators – White Pigeon, Michigan. Photo courtesy of The Andersons, Inc. Corporate Communications

The Andersons Research Grant Program:

Team Competition

Request for Proposals

Submission Deadline:

Friday, September 14, 2018

(No later than 5:00PM Eastern Time.)

NC-213 MEMBER INSTITUTIONS AND REPRESENTATIVES

Officers

Chair ..... Anton Bekkerman, Montana State University
Vice Chair ..... Griffiths Atungulu, The University of Arkansas
Secretary ..... Paul Armstrong, USDA-ARS-CGAHR-SPIERU, Manhattan, Kansas
Past Chair ..... Sam McNeill, University of Kentucky
Industry Advisory Committee Chair ..... Chuck Hill, AgriGold Hybrids
NIFA/USDA Liaison ..... Hongda Chen, National Program Leader, Bioprocessing Engineering/Nanotechnology, USDA-National Institute of Food and Agriculture
The Andersons Liaison ..... Christopher Reed, Director Grain Operations
Administrative Advisor/Coordinator ..... David A. Benfield, The Ohio State University/OARDC, Wooster, OH
Administrative Support ..... Bill Koshar, The Ohio State University/OARDC, Wooster, OH

This is a request for Multistate Project NC-213 members to submit proposals to the Andersons Research Grant Program Team Competition. The Andersons Research Grant Program will provide research funding within the scope of the multistate research project entitled "Marketing and Delivery of Quality Grains and BioProcess Coproducts". For this competition, all team proposals selected for funding will receive up to $75,000 per year for two years (total $150,000).

PROPOSALS MUST BE SUBMITTED NO LATER THAN FRIDAY, SEPTEMBER 14, 2018
(No later than 5:00PM Eastern Time.)

Participating Stations	**Representatives**
University of Arkansas	Griffiths G. Atungulu*
University of Idaho	Dojin Ryu*
University of Illinois	Vijay Singh* Grace Danao, Peter Goldsmith, Marvin Paulsen, Kent Rausch, Matthew J. Stasiewicz, Mike Tumbleson
Purdue University	Klein Ileleji* Kingsly Ambrose, Linda Mason, Richard Stroshine
Iowa State University	Gretchen A Mosher* Carl Bern, Shweta Chopra, Chad E. Hart, Charles Hurburgh, Jr., Dirk Maier, Kurt A. Rosentrater, Angela Shaw
Kansas State University	Subramanyam Bhadriraju* Johnselvakumar Lawrence, Tom Phillips, Kaliramesh Siliveru
University of Kentucky	Michael Montross* Sam McNeill
Mississippi State University	Haibo Yao*
Montana State University	David K. Weaver* Anton Bikkerman
University of Nebraska	Devin Rose* Heather E. Hallen-Adams
North Dakota State University	Senay Semsek* Clifford Hall, Kenneth Hellevang, Frank Manthey
The Ohio State University	Pierce Paul*
Oklahoma State University	Brian D. Adam* Patricia Rayas-Duarte, Carol Jones
Texas AgriLife Research	Tim J. Herrman* Joseph Awika, Kyung M. Lee, Wei Li
University of Wisconsin	Sundaram Gunasekaran*
USDA, ARS, CGAHR, Manhattan, Kansas	Mark Casada* Paul Armstrong, Frank Arthur, Scott Bean, Thomas J. Herald

*Official Voting Representative. (Material on Participating Stations obtained from Christina Hamilton, NCRA Assistant Director and NIMSS System Administrator, on Friday, June 1, 2018.)

SECTION 1.0 STATEMENT OF THE PROBLEM

Legislative and technological changes in grain markets are creating new opportunities to deliver high quality products that enhance value to end-users. Some changes may also create increased risk for different industry sectors. The challenge is to generate value through quality at as many points as possible in the production, distribution, and marketing system. At the same time, it is critical to preserve quality of all cereals and oilseeds, to successfully manage risk and insure security. The 1996 Farm Bill has further increased the need for risk management expertise by all segments of the cereal and oilseed industry. Product and system changes that create value will require improved communication, information, technology transfer, and collaboration among the diverse communities that comprise and affect grain markets.

The goal of The Andersons Research Grant Program - Team Competition is to develop new approaches and technologies to maintain or improve the quality of cereals and oilseeds from harvest to end use, while preserving the environment, and maintaining consumer safety. These approaches and technologies must be developed and implemented if the U.S. is to remain at the forefront of the world's major producers. This program is focused on facilitating multidisciplinary, multistate, and multiagency collaborative research to address critical cereals and oilseed research issues.

SECTION 2.0 OBJECTIVES AND ELIGIBILITY

2.1 Objectives

Proposals submitted to the Team Competition must address one or more of the following NC-213 objectives:

1. To characterize quality and safety attributes of cereals, oilseeds, and their processed products, and to develop related measurement systems.
2. To develop efficient operating and management systems that maintain quality, capture value, and preserve food safety in the farm-to-user supply chain.
3. To be a multi-institutional framework for the creation of measurable impacts generated by improvements in the supply chain that maintain quality, increase value, and protect food safety/security.

Proposals must involve multiple disciplines, states, and/or agencies (U.S. government or state). Collaboration with private industry is also encouraged.

2.2 Eligibility

To be eligible for The Andersons Research Grant Program –Team Competition, at least one of the principal investigators must be a member of Multistate Research Project NC-213, (i.e., name must be listed in Appendix E of the plan of work) "Marketing and Delivery of Quality Grains and BioProcess Coproducts". In addition, at least one investigator must have a current report included in the 2017 Annual Report of Progress. Any investigator with outstanding annual or final reports from previously funded Andersons Grant Program projects will be ineligible for the competition until reporting obligations are met.

SECTION 3.0 FORMAT FOR PROPOSALS

All proposals must be submitted on-line as PDF documents (Adobe). To submit proposals visit the NC-213 web site at http://www.nc213.org and select the "Submit a Proposal" tab on the right column. Once you are on the submission page, you will need to enter the following information:

- Principal Investigator's Name (Last Name, First Name)
- Principal Investigator's E-mail address
- Proposal Title
- Requested Funding (Please use integers only. No "$" sign or decimal point.)
- Competition Type (From the drop down, select "regular.")
- Comments

Use the "Browse" feature to find your file (.pdf format), click once on the "Submit" button to submit your proposal.

Proposals must be submitted using a standard 8.5 x 11 page size with 1" margins and an easily readable font (e.g., Arial, Tahoma, Times Roman) in 12 point font. All pages except the Cover Page should be numbered at the bottom center of the page. Proposals are limited to 15 pages, excluding the cover page, CV (two page maximum), Current & Pending, and budget pages. Research project proposals must contain the following sections and must be assembled as follows:

- **Cover page** (example included below).
- **Problem Identification and Related Research** - Describe the basis for the project, a means to evaluate the importance of the objectives and what research has been accomplished to date.
- **Objectives** - Indicate which NC-213 objective(s) (i.e., Objectives 1-3, Section 2.1) the project will address and the specific objectives for the proposed research.
- **Procedures** – (Formerly titled "Methods.) Describe in detail, the process that will be used to complete the investigation, including the experimental design, equipment, materials, and travel. This section should also explicitly describe how the collaborators/coPIs will interact.

- **Anticipated results, products, and impacts** - Describe the expected results and products developed as a part of this research project. How will the results/products of this project impact the industry and who will use the results/products?

- **Leveraging Resources** – Describe how the Andersons Funds can and will be used to leverage additional resources (e.g., matching funds, used to seed a larger grant/contract activities). Please be specific about your approach. This grant should lead to other future funding opportunities.

- **Timetable** - Describe the schedule of events; be specific.

- **Literature Cited** - List only those articles, books, or reports that are referenced in the proposal.

- **CV** – (U.S.D.A. guidelines for CVs may be followed.) CV should be no longer than two pages, excluding publications and the information listed here must be included: Education, Employment and professional history, honors @ awards, selected recent or relevant publications within the past four years. One for every investigator.

- **Current and Pending** (See form provided below). One for every investigator.

- **Budget** - All proposals must include an itemized budget. This budget should indicate materials, supplies, travel, and other expenses that will be required to complete the research. The budget must follow the Budget format provided in this request for proposals.

- **Budget Narrative** - Briefly describe how each budget item will be used in the project.

SECTION 4.0 PROPOSAL EVALUATION CRITERIA

The following criteria will be used to evaluate The Andersons Research Grant Program proposals. Proposals must precisely follow the format in Section 3.0.

1. Does the proposed project address problems that relate to NC-213 objectives as presented in the 20013-2018 Workplan?
2. Will the collaborators/co-PIs work as a team or independent of one another. Does the proposal adequately describe how the collaborators/co-PIs will interact? Does the project involve multiple disciplines, states, agencies or private industry? (Rated on 1-5 scale, see below.)
3. Is the science sound and of high quality? (Rated on 1-5 scale, see below.)
4. Are the objectives clear and quantifiable? Does the proposal clearly describe statistical analyses where appropriate? (Rated on 1-5 scale, see below.)
5. Is the written quality (organization, grammar, spelling, clarity) of the proposal sufficiently high? (Rated on 1-5 scale, see below.)
6. Are there clearly stated outputs of the proposed research? Examples: Reports,

publications, patents, data, workshops. (Rated on 1-5 scale, see below.)

7. Will the proposed research be likely to produce tangible results within a two-year period, and does it have the potential to generate competitive external funding for continued program support? (Rated on 1-5 scale, see below.)
8. What is/are the impact(s) (short- and/or long-term) of this research on the grain industry and/or grain science? (Rated on 1-5 scale, see below.)
9. Is the proposed budget appropriate to conduct the proposed research?
10. Do the methods adequately describe how the research will be accomplished? (Rated on 1-5 scale, see below.)

*All reviewers have the opportunity of leaving specific comments in addition to rating each criteria.

All proposals will be evaluated by a Review Panel made up of the Administrative Advisor/Coordinator, Past Chair, Objective Chairs, and one member from the Industry Advisory Committee. If a Review Panel member submits a proposal for funding consideration, they shall be replaced by the Administrative Advisor/Coordinator from among current officers and/or current members who have not submitted a proposal. The Review Panel will rate each evaluation criterion (above) on a scale of 1 to 5 (1 – excellent, 2 – above average, 3 – average, 4 – below average, 5 – poor), or by a "Yes" or "No". Those scores will be summed to arrive at a total score for each proposal. Panel discussion and written comments will augment numeric scores in the event of a tie. These comments also serve as feedback to the submitting team.

Within the limits of available funds, awards will be made to applicants whose proposals are judged most meritorious under the evaluation criteria and procedures defined. Andersons Grant funds will become available to principal investigators based on the start date of the project.

SECTION 5.0 REPORTING

An annual (Year 1) progress report and a final (Year 2) written report are required. Annual reports must be submitted no later than 30 days after the end of the project year. Second year funding will not be released until an acceptable annual report is received. Successful investigators are eligible to receive future Andersons Grants only if they have completed previous projects and submitted acceptable final reports. Final reports must be submitted no later than 90 days after the project end date. In addition to written reports, grant recipients are expected to present project results during the NC-213 Annual Meeting.

To submit your report, visit the NC-213 web site at http://www.nc213.org and select the "Submit A Report" tab on the right column.

- Enter your e-mail address.
- Enter your password (provided by the Administrative Advisor's office).

Once the password has been entered, click the "Login" button and you will be taken to a page that lists your funded project(s). Select the project for which you would like to submit a report. Type or paste your written text into the space provided and then select the "Save and Continue" button. The next screen will give you the opportunity to add elements to your report. If you add additional elements, you will need to click the "Save" button after each element. Elements are:

- Abstracts, Conference Proceedings
- Article, Peer Reviewed (only published or in press)
- Book Chapter (only published or in press)
- Bulletin or Technical Report
- Invention Disclosures
- Patents
- Extramural Funding
- Most Importantly: lay summary on results and impacts.

Once finished, the next screen will show your lay summary. To complete your submission click the "Log Out" button.

The Andersons Research Grant Program is supported by an endowment made to The Ohio State University (OSU) by The Andersons Inc. in February of 1966.

The Andersons founded in 1947, is a diversified agribusiness and retailing firm based in Maumee, Ohio. Its Agriculture Group, one of the top grain handlers in the United States, also produces and markets fertilizer products and operates ten Retail Farm Centers. The Processing & Manufacturing Group includes railcar repair and marketing, lawn fertilizer production and marketing, corncob milling for industrial and environmental applications, and the operation of seven full-service auto repair centers and one outdoor power equipment dealer. The Retail Group consists of six stores in Toledo, Columbus, and Lima, Ohio.

Proposal No. _____

The Andersons Research Grant Program
Team Competition

Project Title: _____
_____
_____

Principal Investigator(s)

Name	Institution/Agency/Other

(Attach an additional sheet if more space is needed.)

Project Contact (list one person to act as the primary contact):

Name:	
Address:	
Phone:	
Fax:	
E-mail:	

Period of Proposed Project Dates:

Beginning: _____ Ending: _____

Amount Requested (maximum $75,000 per year for two years):

Year 1: _____ Year 2: _____

ANDERSONS RESEARCH FUND - RESEARCH PROPOSAL BUDGET

Category	Year 1 Amt. requested from Andersons	Year 2 Amt. requested from Andersons	Total
Salaries and Wages*			
Post-Ph.D. research associate(s)			
Graduate assistant			
Stipend			
Tuition and fees			
Hourly wage			
Other (specify in Budget Narrative)			
Total			
Fringe Benefits			
Post-Ph.D. research associate(s)			
Graduate assistant			
Hourly wage			
Other			
Total			
Materials and Supplies			
Equipment (List individual pieces of equipment that are essential to the project in the Budget Narrative.)			
Travel			
Publication charges			
Indirect costs**			
Total (Max. $75,000/yr from Andersons Research Grant Program)			

*Andersons funds cannot be used for faculty salaries, departmental space, or facilities.

**The Andersons Research Grant Program policy specifies that no indirect costs can be charged to this project.

CURRENT & PENDING SUPPORT

Name:

Instructions:
Who completes this template: All individuals contributing to this research.
How this template is completed:

- Record information for active and pending projects, including this proposal.
- All current efforts to which individuals contributing to the research have committed a portion of their time must be listed, whether or not salary for the person involved is included in the budgets of the various projects.
- Provide analogous information for all proposed work which is being considered by, or which will be submitted in the near future to, other possible sponsors, including other programs.
- For concurrent projects, the percent of time committed must not exceed 100%.

NAME	SUPPORTING AGENCY/ SPONSOR AND AGENCY ACTIVE AWARD/PENDING PROPOSAL NUMBER	TOTAL $ AMOUNT	EFFECTIVE AND EXPIRATION DATES	% OF TIME COMMITTED	TITLE OF PROJECT
	CURRENT:				
	PENDING:				

Pre-submission checklist.

To ensure that your grant proposal meets all criteria to be reviewed, the following items must be checked-off and reviewed prior to submitting your grant proposal. Missing any of the items below will make your grant proposal ineligible for this opportunity.

___ At least one of the principal investigators must be a member of Multistate Research Project NC-213 and is their name listed in Appendix E.

___ At least one investigator must have a current report included in the current Annual Report of Progress. Please visit the NC-213 website to review the latest report.

___ Any investigator with outstanding annual or final reports from previously funded Andersons Grant programs must meet all reporting obligations or the grant proposal will be ineligible for the competition. Please ensure that each investigator is up to date.

Your grant proposal must contain, in this order, the following, pages numbered:

___ Cover page.

___ Problem Identification and Related Research.

___ Objectives.

___ Procedures. (Formerly titled "Methods".)

___ Anticipated results, products, and impacts.

___ Leveraging Resources.

___ Timetable.

___ Literature Cited.

___ CV – (U.S.D.A. guidelines for CVs may be followed). One for every investigator.

___ Current and Pending. One for every investigator.

___ Budget.

___ Budget Narrative.