Utah Agricultural Experiment Station
Seed Grant Program
General Guidelines for 2024

The goal of the UAES Seed Grant program is to place UAES researchers in a strong leadership position (e.g., building capabilities, collaborations, proof of concept, "blue-sky" concepts, etc.) to address Critical Issues identified in Utah State University's NIFA Plan of Work, specifically:

- ▶ Global Food Security and Hunger
- ▶ Climate Change and Management of Natural Resources
- ▶ Nutrition and Health
- ▶ Food Safety
- ▶ Healthy, Financially Secure Families
- ▶ Youth Development
- ▶ Community Resilience

While research undertaken as part of the UAES Seed Grant program must fit into one of the Critical Issues in USU's NIFA Plan of Work, it is understood that targeted funding sources can be much broader than just USDA. A key component in the funding decision will be how the successful UAES Seed Grant proposal articulates basic and/or applied research that improves USU's leadership in an area of critical need. While it is expected the proposed research activities will generate refereed publications, presentations, and student training, a major part of the funding decision depends on the potential of the project to result either in significant external funding opportunities for USU researchers and/or address an issue of critical importance to the state of Utah. Essentially, we seek activities related to "big ideas" that will help lead us to the next level in our research activities by providing new or broadened avenues of research that enlarge the stature of the UAES. Cross-disciplinary collaboration often plays an essential role in these activities. Successful proposals must not only fit into NIFA priority areas but also priority areas defined by the UAES. In this round, UAES Seed Grants are targeting USDA and NIFA priority areas. These areas either currently, or will have large RFPs. The goal is to align Seed Grant Funding with future funding opportunities.

1. Climate Smart Agriculture – managing land and water resources in agricultural systems to conserve natural resources and improve ecosystem services (may include topics related to water use, livestock and/or plant systems)
2. Food and Human Health – systems that improve safety, quality, and access to healthy, nutritious food.
3. Climate Change and Management of Natural Resources
4. Local Regional Food Systems - including supply chains and processing.
5. Improved Fertilizer Efficiency and Alternatives.
6. Economic Prosperity through Bio-Based Systems – systems that support the expansion and implementation of a robust and sustainable bioeconomy, including renewable energy systems.
7. Any area which fits USDA priorities and results in a strengthened leadership position for USU

Please follow the guidelines below as you develop your proposal. Proposals are limited to no more than $80,000 in total for the entire grant period, which may not exceed 24 months. **PIs who received a UAES Seed Grant in 2023 are ineligible to be PIs for this round of funding but may be co-PIs on new seed grants.** Co-PIs of UAES Seed Grants funded in 2023 are eligible to be PIs but the proposed project must be underlined (essentially a different idea and vein of research) to the Seed Grant project funded in 2023.

The purpose of UAES Seed Grants is not to provide on-going support for research that has received previous support from the UAES Seed Grant program.

Your Application should include the following components:

Cover page (PDF form):
1. Title: A concise description of the project.
2. Priority Area(s): At least one of the seven USDA/NIFA Critical Issues should be addressed within the project as well as at least one of this round's seven targeted UAES priority areas.
3. Personnel: Specify the Project Director, his/her Banner identification number, academic title and department, as well as any Co-project Directors and their departments.
4. Project Duration: Proposals are expected to cover no more than 24 months with funding beginning on May 1, 2024. **Seed grant projects must be entered in Digital Measures as a new UAES project and approved by UAES before funding for the UAES Seed Grant begins.**
5. Total Requested Amount: Requests may be for up to $80,000 for the entire grant period.
6. Signatures of the Project Director and their Department Head are required.

Project summary or abstract:
Immediately following the cover page include a separate page with a non-technical project summary. The project summary should be no more than 400-words in length and should be in layman's language.

Proposal narrative (maximum 8 pages):
1. An introduction to the project describing in clear, concise language: (1) the critical need or background information that justifies or explains the proposed project; (2) the target audiences for the project; and (3) the scientific hypothesis and objectives addressed by the project. Most importantly, explain how the proposed research activities place USU in a stronger position to lead in this area either now or in the future.
2. A concise review of the relevant literature. This should include a discussion of the emerging research needs in this area, the current state of research (science) in the area and USU's current position in the research area.
3. The procedures and methods that will be used to address the specific objectives. Essentially, how will the monies be expended to get us from where we are, as indicated in the literature review, to where we need to be, or how will the proposed project place us in an even stronger position to excel in this area?
4. Anticipated outcomes. Research activities are, by definition, expected to result in refereed publications, presentations, and student training. More importantly though, also explain how the outcome of the project is expected to make a real difference in USU's efforts in this area or research endeavor. **Explain how data from your project will be used to support an external grant proposal and give a timetable for submission of an external grant. This should include agency, targeted funding program, etc. Include an explanation of how the proposed project makes USU more competitive for this funding than if your proposed project were not funded.** There should also be a discussion of the potential broader impacts (beyond the contribution to science) of USU's involvement and leadership in this area (Who will be affected? How much potential impact will be manifested?).
5. Metrics for identifying success. This must include specific outcomes that can measure where USU was at the start of your project and where we are expected to be at the end of the project in terms of our competitive position (how will success be measured?).

6. A <u>management plan</u> that identifies the role of each researcher and any graduate and/or undergraduate students participating in the project. This should include how junior faculty members will gain experience with project management.
7. A <u>list of references</u> should follow the project narrative but is not included as part of the page limit for the project narrative.

Budget and budget justification:

1. Budget Form: Provide salaries, benefits and other expenses on this form. Requests for graduate student support will be considered but require a 50% match, which may come from UAES sources. Tuition and fees are not allowable expenses because they are not considered a research related expense. Requests for undergraduate interns can be made without a match. **Faculty salaries and benefits may not exceed 25% of the total budget requested. Furthermore, funds may not be used to augment faculty base salaries, they can only be applied to faculty who are in soft-money positions (non-tenure track faculty) or who do not have a research component in their role statement (based on their role statement signed and in effect as of January 1, 2024).** In-state, out-of-state, and international travel may be included in the budget only if it can be justified as meeting a critical need for the project. Funds for purchase of capital equipment (equipment costing >$5,000) that is essential for the proposed project can be included but equipment requests require a 50% match from a non-UAES source (index number must be provided for the match). Benefits must be calculated at 46% for contract employees, 8.3% for payroll personnel, and 0.8% plus $161.67 per month for the university's portion of medical insurance for graduate students (see https://research.usu.edu/spo/benefit-rates). If you receive an award, budget deviations of more than 10% must receive prior written approval from the Associate Director of the Utah Agricultural Experiment Station.
2. Budget justification: Provide an explanation of why specific expenses have been included in the budget. Describe source of 50% matching funds for graduate assistantships (match may be from UAES funds) and provide the index number for the match. Likewise, indicate the source of matching funds for capital equipment and provide the index number.

Biosketches for the Principle Investigator(s):

1. Include a brief biosketch (limited to 4 pages) for the Project Director (PD) and each Co-PD.
2. Biosketches should adhere to USDA, NIH or NSF formats.

General procedures:

- Proposal length: Please be concise. The Narrative portion of the proposal must not exceed **eight single-spaced, typewritten pages** (12-point font with one-inch margins on all sides). The cover page, project summary, reference list, budget form, budget narrative/justification, and biosketches are not included in the eight-page limit.
- Notification of awards: Notification of awards will be provided to the applicant and their department head by the UAES Associate Director approximately one month after the submission deadline.
- All expenditures must be made according to university policies and procedures and within the fiscal year(s) for which funding was approved. All funds must be expended during the grant period and no funds will be carried forward. Any funds remaining in your account at the end of the project will be returned to the Utah Agricultural Experiment Station for reallocation (no-cost extensions are not generally granted). The proposal must include a budget narrative justifying proposed expenditures.

- Project reports: **<u>Annual</u>** written progress reports for the project must be submitted in Digital Measures for review by the UAES Associate Director and your Department Head. A final report must be submitted in Digital Measures within one month after the completion of the project. No new grants will be awarded until past reports have been received.
- A review panel of experts will make recommendations for funding of projects to the UAES Director. Funding is based on available resources and the scientific merit of the proposals submitted. The Director reserves the right to fund or not fund projects recommended for funding by the panel, to fund projects at full or partial levels depending upon the appropriateness of the budget and budget justification, as well as the right to fund projects in some or all of this round's targeted UAES priority areas.
- These awards provide "seed money" and represent an opportunity to strengthen the position of USU and the UAES in the scientific community. The probability of establishing a pathway leading to "external" funding is a primary goal for making these awards. PDs are encouraged to include both senior and junior faculty members in their research team. When applicable, a plan for building the capacity of junior faculty in research capability and project management should be included in the proposal.

Evaluation criteria:

A panel of research experts will evaluate each submitted proposal for its scientific merit and will make recommendations to the Director of the Utah Agricultural Experiment Station based on the criteria and weights provided below:

a. Quality of the idea and proposed activities in terms of scientific merit, innovation, originality, broader impact, etc. (30 points)
b. Probability the proposed research activities will position USU for significant external funding in the future and/or considerably strengthen UAES capabilities in an area of critical need to the state of Utah (25 points)
c. Anticipated outputs related to dissemination (journal articles, presentations, student training, etc.) (10 points)
d. Quality of research team, collaborations, etc. as they relate to ability to address one of this round's targeted UAES priority areas (10 points)
e. The quality of the management plan (5 points)

f. Contribution of the proposed project to building the capacity of junior faculty in research and project management skills, and/or positioning senior faculty to move into a new area of research (10 points)
g. Appropriateness of proposed budget and explanation of budgeted activities in achieving the goals and objectives of the proposed project (10 points)

Dates, Submission Procedure, and Forms:

Proposals are due before 5:00 p.m. on **Friday, February 23, 2024**, and must be submitted electronically at https://caas.usu.edu/uaes/internal-resources/project-support. Please submit a single PDF document assembled in the following order: (1) Cover Page, (2) Project Summary, (3) Project Narrative (limited to eight pages), (4) References, (5) Budget Form, (6) Budget Justification, and (7) Biosketches. If you have questions about the UAES Seed Grant Program or how to submit a Seed Grant proposal, please contact Greg Cuomo, Associate Director of UAES (email: greg.cuomo@usu.edu; phone: 435-757-1520).