FY 2022 AAES AGRICULTURE RESEARCH ENHANCEMENT AND SEED FUNDING PROGRAM (ARES)

SUBMISSION DEADLINE
May 21, 2021

PURPOSE AND PRIORITIES

The Alabama Agricultural Experiment Station (AAES) at Auburn University was established in 1883 by an act of the Alabama Legislature to conduct scientific research that would advance Alabama's agricultural and forestry industries. AAES operations are supported with funding support from the USDA NIFA Hatch funding program and the State of Alabama. AAES researchers conduct innovative fundamental and applied (mission-oriented) research that supports the advancement of Alabama's agriculture and forestry industries, for the purpose of improving quality of life and well-being of citizens and communities of Alabama and beyond. Research conducted by AAES faculty are broadly categorized under the following focus areas: i) Plant Production and Management Systems; ii) Food Animal Systems; iii) Integrated Food and Human Health Systems; and iv) Sustainable Ecosystems and Renewable Resource Management.

The AAES Agriculture Research Enhancement and Seed (ARES) funding program is designed to strengthen agriculture-related research at Auburn University by providing seed funding for innovative research ideas and collaborations in the above listed four research focus areas.

FUNDING CATEGORIES

Funding Categories for the FY 2022 ARES program include:

1. Agricultural ReSearch Enhancement, Exploration and Development (AgR-SEED)
2. AAES Award for Interdisciplinary Research (AAES-AIR)

ELIGIBILITY

- The lead principal investigator (P.I.) and Co-P.I.(s) must have an AAES appointment, USDA-approved (or pending approval) Hatch project, or serve as Auburn's Official Station Representative for a Hatch/Multistate project. (Membership alone in a multistate project is NOT sufficient for meeting this requirement.) Please note that only AAES faculty members can be listed as P.I./Co-P.I. due to Hatch project requirements. Participating graduate students, postdocs, Extension agents, and other non-AAES personnel may be listed as "Other Key Personnel."

- The P.I./Co-P.I.(s) must have submitted their 2018 Hatch or Hatch/Multistate project report in the REEport system. The requirement of a Hatch project for faculty members hired within the last 12 months can be waived upon the approval of the department head. The department head should email their request for waiver to the Associate Dean for Research & Associate Director of AAES (Dr. Henry Fadamiro) before a proposal is submitted. Note that a waiver of the requirement for Hatch projects for faculty hired within the last 12 months will only ensure consideration of their proposal by the evaluation panel. If recommended for funding, the P.I./Co-P.I.(s) must submit a Hatch project in REEport before release of awarded funds.

- Investigators can be the lead P.I. on only one proposal per category (i.e., a faculty can serve as lead P.I. for one Equipment proposal, one AgR-SEED proposal, and one AAES-AIR proposal).

- Faculty members who received either an AAES AgR-SEED grant, Equipment grant, or an AAES AIR grant in FY 2021 (as lead P.I.) are not eligible to submit a proposal (as lead P.I.) in the same category for which they are requesting an FY 2022 funding award.

Note: The amount of funding for this program is currently unknown and therefore all or part of this RFA is subject to change depending on the economic situation and the amount of HATCH funds received from the federal government.

- Faculty members who previously received (as lead P.I. or Co-P.I.) an AAES grant (i.e., Production Agricultural Research or PAR, AgR-SEED, Equipment grant or AIR), but have not submitted competitively reviewed proposal(s) for extramural funding as a lead P.I. or Co-P.I. (excluding Auburn University internal grants, commodity funding, and industry gifts) since their last AAES grant(s) are not eligible for this competition.

AWARD CATEGORIES

Equipment Funding

Equipment Funding of $5,000 to $50,000 will be provided toward the purchase of a single piece or a cluster of equipment. The total cost of the equipment is unlimited, but AAES will provide awards up to $50,000. The required 50% cost share can be waived for core equipment proposed by a group/team of faculty that will benefit multiple faculty members or facilitate collaborations among AAES faculty.

Agricultural ReSearch Enhancement, Exploration and Development (AgR-SEED)

AgR-SEED funding program is to be viewed as a source of funds to initiate, stimulate, or partially fund innovative research programs; these funds should not be viewed as a primary source of research support. Principal investigators (P.I.s) are required to seek extramural funding for additional research dollars, particularly from regionally or nationally competitive funding programs.

Proposed research projects should address Alabama agricultural or related needs and ultimately serve as economic engines for the state of Alabama. Therefore, proposed research objectives should align with identified agricultural needs within the state, and with extramural funding opportunities.

The funding amount is up to $25,000 per year, for up to two years. Funding will be released on an annual basis, contingent upon availability of funds and based on project's successful progress. To receive Year 2 funding, the P.I. must submit at least one competitive extramural grant proposal (i.e., a peer reviewed competitive grant program, excluding Auburn University internal grants, commodity funding, and industry gifts) based on (or directly related to) the funded AAES seed grant by September 15, 2022.

AAES Award for Interdisciplinary Research (AAES-AIR)

The purpose of AAES-AIR is to foster interdisciplinary research collaborations between AAES faculty members. Definition: The National Science Foundation (NSF) uses the definition of interdisciplinary research proposed in a National Academies report:

> *"**Interdisciplinary research** is a mode of research by teams or individuals that integrates information, data, techniques, tools, perspectives, concepts, and/or theories from two or more disciplines or bodies of specialized knowledge to advance fundamental understanding or to solve problems whose solutions are beyond the scope of a single discipline or area of research practice."* https://www.nsf.gov/od/oia/additional_resources/interdisciplinary_research/definition.jsp

The above definition has been adopted as a working definition of interdisciplinary research for the AAES-AIR program.

Interdisciplinary research teams are expected to define an innovative interdisciplinary research project that addresses an important issue related to the mission of AAES. The AAES leadership team in the five colleges has identified five research priority areas listed below. AIR proposals submitted in response to this RFA must address one of the following identified AAES AIR Priority Areas:

Biosecurity Research: Research in this AAES Priority Area will address issues affecting biosecurity of economically important plants, animals and related production and/or distribution systems through advancement of novel approaches to the detection and/or mitigation of risks posed by existing and emerging threats to such systems.

Genomics and Molecular Therapeutics: Research in this AAES Priority Area will address current, future and ever-changing agricultural conditions through efforts designed to: i) identify molecular markers and mechanisms regulating performance, resilience and productivity; and ii) advance development of novel therapeutics that are designed to prevent or mitigate effects of diseases, pests and disorders affecting the health and well-being of economically important plants and animals. Advances in molecular genetics, genomics, operomics, gene editing, and molecular therapeutics are enabling and driving discovery and innovation in this priority area.

One Health: Research in this AAES Priority Area will address information gaps regarding One Health (the nexus of human, animal, and environmental health) and interdependencies among the three components. The goal is to optimize human health through a better understanding of animal and environmental health and the linkages involved. Topics of particular interest include: i) increasing emergence of tropical vector-borne and zoonotic diseases, ii) influence of climate variation, iii) pathogen transmission cycles, and iv) influence of natural system disturbances. Projects should be relevant to agriculture or natural resources as well as society and may span fundamental to applied approaches and from molecular to ecosystem levels.

Rural Health: Research in this AAES Priority Area will addresses critical questions concerning the health and well-being of rural people and communities. The purpose of this priority area is to support research that informs ways to understand and address the health needs and health disparities in the rural state of Alabama. Topics of particular interest include: i) health of individuals,

families and communities; ii) rural environmental health issues that directly affect human health; ii) health disparities particularly among minority and low-income populations; iv) nutrition, food security and the link between food and health; and v) aging rural populations.

Water Resources: Research in this AAES Priority Area will address information gaps related to the availability, management, and protection of water resources, and how they impact socioeconomic well-being and human, animal, and ecosystem health. Topics of particular interest include: i) influence of human activities on water quantity and quality; ii) management of competing uses of water resources; iii) prediction of interactions among climate, hydrology, water quality, and socioeconomics; iv) influence of water availability and quality on human, animal, and ecosystem health; and v) improved methods for monitoring and managing water quantity and quality.

AIR proposals are expected to develop from participation in the AAES Interdisciplinary Research Teams. Faculty teams wishing to submit AIR proposals are expected to be active participants in one or more AAES Interdisciplinary Research Teams. The proposed interdisciplinary research must lead to the development of competitive proposals for extramural funding. Each collaborative team must include an AAES faculty lead P.I. and Co-P.I.(s). Collaborations with non-AAES faculty members are encouraged but the budget cannot include funding support for non-AAES faculty members. AAES-AIR should be viewed as an investment in the interdisciplinary research proposed by the team to enhance the team's ability to attract extramural funding for the research. Thus, expected outcomes of AAES-AIR funding include submission/award of competitive interdisciplinary extramural grants.

Funding amount is up to $75,000 per year, for up to two years. Funding will be released on an annual basis, contingent upon availability of funds and based on project's successful progress. To receive <u>Year 2</u> funding, the team must submit at least one competitive extramural grant proposal (i.e. a peer-reviewed competitive grant program) based on (or directly related to) the funded AAES seed grant by Sept. 15, 2022.

APPLICATION REQUIREMENTS AND FORMAT

1. **Format:**
   - Margin - 1 inch: top, bottom, left, and right.
   - Minimum font size - 11 points.
   - Single- or double-spaced, single-sided 8.5 x 11 inch pages.
   - Pages should be numbered
2. **Proposal Content:**

AgR-SEED Funding
Proposals for AgR-SEED must include the following sections:

A. **Alabama Agricultural Experiment Station Hatch/Multistate Grant Proposal Cover Form** – signatures are needed on the cover form. The form is available at: https://aaes.auburn.edu/wp-content/uploads/sites/2/sites/2/2020/03/Grant-Proposal-Cover-Form-AAES-20200330.pdf

B. **Project Summary/Abstract** – The Project Summary is limited to **one typed page**.

C. **Project Narrative** (Project Description) – limited to **10 single- or double-spaced pages, including figures and tables**. The page limit will be strictly enforced to ensure fair and equitable competition. Proposals that fail to comply with the page limit will be returned without review. The Project Narrative should consist of the following sections:

(a) **Response to Previous Review.** This requirement only applies to Resubmitted Applications to the AgR-SEED program. P.I. must respond to the previous review panel summary on no more than one page, titled "RESPONSE TO PREVIOUS REVIEW." When a Response to Previous Review is included in the Project Narrative, the page limitation is increased to 11 total pages to include the one-page response.

(b) **Introduction**. The introduction should include a clear statement of the research question/problem, long-term goal(s), and supporting objectives or research questions of the proposed project. Summarize the body of knowledge or other past activities that substantiate the need for the proposed project. Describe ongoing or recently completed significant activities related to the proposed project, including the work of key project personnel. Include preliminary data/ information pertinent to the proposed research. All works cited should be referenced. *This is the section to set the stage for your project, to answer a significant scientific question or to resolve a significant problem.*

(c) **Rationale and Significance**. Concisely present the rationale behind the proposed research project, the specific relationship of the project's objectives to AAES mission and program areas, the potential long-term impact on improvement in and sustainability of U.S. agriculture, food and forestry systems, and the potential of this project to enhance future extramural grant applications. *Use this section to make a case to the reviewers why your research should be funded.*

(d) **Approach**. The activities proposed or problems being addressed must be clearly stated and the approaches being applied clearly described. Specifically, this section must include: 1.) a description of the activities proposed and the sequence in which the activities are to be performed, 2.) methods to be used in carrying out the proposed project, 3.) the feasibility of the methods, considerations of alternative methods and if the proposed method is state of the art, 4.) expected outcomes, 5.) means by which results will be analyzed, assessed, or interpreted, how results or products will be used, 6.) pitfalls that may be encountered and the alternative approaches to compensate for pitfalls, 7.) limitations to proposed procedures, 8.) a full explanation of any materials, procedures, situations, or activities related to the project that may be hazardous to personnel, along with an outline of precautions to be exercised to avoid or mitigate the effects of such hazards, and 9.) a brief timeline of the proposed project.

(e) **Plans for securing extramural funding**. Leverage of extramural funding will be used as one of the key criteria in funding decisions. Provide a list of specific anticipated extramural funding opportunities to support continuation of the proposed research. This must include agency name, target program, anticipated RFA release, and estimated date for proposal submission by the team to the funding program.

D. **Results from Prior AAES Support** – **2-Page Limit per prior Award per P.I/Co-P.I.** If the P.I./Co-P.I. have received AAES support in the past five years, information on results from that prior funding is required. Required information includes year of previous AAES funding and dollar amount, publication list, patents, products, or other significant research output as appropriate.

E. **Leverage of Prior AAES Support** – **No Page Limit per P.I./Co-P.I.** AAES ARES is a seed funding program. An important measurement of its success is the leverage of additional funding from extramural sources. If the P.I./Co-P.I. have received AAES support in the past five years, please provide a list of extramurally funded projects with information on funding agency, funding period, and dollar amount of the grants/contracts (please do not list Auburn University intramural grants, commodity grants or industry gifts). Earmarked funding can be listed, but must be so noted. A separate list of proposals that were submitted to extramural sources, but were not funded, should also be included. This list should provide the name of each submitted proposal, the requested funding level, and the agency to which the proposals were submitted. Please include a statement on the link between the AAES seed grant(s) received by each P.I./Co-P.I. and each extramural proposal submitted (funded and unfunded). Note that leveraging of extramural funding is an eligibility requirement for participation in the AAES seed funding program.

F. **References Cited** – **No Page Limit**. All work cited in the text, including that of key personnel, should be referenced in this section of the application. All references must be complete, including titles and all co-authors in a professional journal format, listed in alphabetical order, using the last name of the first author or listed by number in the order of citation.

G. **Facilities & Equipment** – **2-Page Limit**. In addition to describing available equipment, list applicable items of nonexpendable equipment, and facilities in the outlying units that are necessary to conduct and successfully complete the project.

H. **Budget**- Provide a budget for each year, use USDA standard format similar to: https://aaes.auburn.edu/wp-content/uploads/sites/2/sites/2/2019/01/2-YearBudget.pdf

Appropriate Costs include:
- Salaries and Wages.
- Fringe Benefits (for FY 2020: 30.4% for full time employees, 14.3% for part time employees and 4.0% for Graduate Assistants., 0% for undergraduates)
- Materials and Supplies (including payment to human subjects).
- Travel directly relevant to proposed effort.
- Equipment (total is limited to $5,000).
- Publication Costs.

I. **Budget Justification** – **2-page limit**. Provide a justification for budget requests.
(a) Budget requests can be made for technical or postdoctoral salary support, graduate research assistantships, and undergraduate research support. AAES recognizes the importance of graduate and undergraduate training and encourages P.I.s to involve graduate and undergraduate students in agricultural research.

(b) Request for summer salary for P.I.s on 9-month appointment is allowed only for the lead P.I. for up to one-month salary per year regardless of the number of collaborators; fringe benefits must be included for all salaries as appropriate. Salaries already supported by AAES funds cannot be charged to these projects.

(c) Payments for various materials, chemicals, and supplies, travel directly related to the project, publication costs, and/or equipment (up to $5,000 total) can be requested.

(d) Projects which will be conducted in one (or more) of the AAES Outlying Stations must include an appropriate budget for the specific station(s) to support labor, equipment and supplies costs at the station. The P.I. must list the station(s) and include a statement of support (letter or email) from the station's director.

(e) Funds cannot be requested for indirect costs such as office supplies, phones, cell phones, internet service,

subscriptions, memberships, laptop computers, iPads, software, desktop computers, or computer peripherals (e.g., printers, data storage, etc.).

J. **Functions of Key Personnel** – Clearly describe the roles and responsibilities of the P.I. and Co-P.I.s.

K. **Curriculum Vitae** – Provide a biosketch for each P.I./Co-P.I., **limited to two pages in length** excluding the publications list. The CV should be limited to presentation of academic and research credentials. Do not include meetings attended, seminars given, or personal data. The publications list shall include a chronological or reverse chronological list of all publications in refereed journals during the past four years. Please indicate with an (*) publications that have resulted from previous AAES grants.

L. **Current and Pending Support Form for each P.I./Co-P.I.** – A template is available at: https://aaes.auburn.edu/wp-content/uploads/sites/2/sites/2/2019/01/Hatch-Multistate-Support-Form.pdf

M. **Collaboration** – Evidence such as letter(s) of support from Co-P.I.s and other collaborators only providing services or materials should be provided showing they have agreed to their assigned role in the project.

N. **Conflict of Interest List for each P.I./Co-P.I.** – You can provide an alphabetical list, or use the USDA Conflict of Interest List Template that can be found with budget pages at: https://aaes.auburn.edu/wp-content/uploads/sites/2/sites/2/2019/01/HatchMultistateConflictForm.pdf.

No additional materials, appendices, or supplementary documentation will be accepted.

AAES-AIR Funding

Proposals for AAES-AIR must include the following sections:

A. **Alabama Agricultural Experiment Station Hatch/Multistate Grant Proposal Cover Form** – signatures are needed on the cover form. The form is available at: https://aaes.auburn.edu/wp-content/uploads/sites/2/sites/2/2020/03/Grant-Proposal-Cover-Form-AAES-20200330.pdf

B. **Project Summary/Abstract** – The Project Summary is limited to **one typed page**. Include a statement on the AAES-AIR Priority Area addressed by project.

C. **Project Narrative** (Project Description) – limited to **12 single- or double-spaced pages, including figures and tables**. The page limit will be strictly enforced to ensure fair and equitable competition. Proposals that fail to comply with the page limit will be returned without review. The Project Narrative should include the following sections:

(a) **Introduction**. The introduction should include a clear statement of the research question/problem, long-term goal(s), and supporting objectives and research questions of the proposed project. Summarize the body of knowledge or other past activities that substantiate the need for the proposed project. Describe ongoing or recently completed significant activities related to the proposed project including the work of key project personnel. Include preliminary data/information pertinent to the proposed research. All works cited should be referenced (see References Cited). *This is the section to set the stage for your project, to answer a significant scientific question or to resolve a significant problem.*

(b) **Rationale and Significance**. Concisely present the rationale and vision for the proposed research project, and its innovative nature. This section should also highlight the long-term research goals and specific relationship of the project's objectives to at least one of the priority areas of this funding program, the potential long-term impact on improvement in and sustainability of U.S. agriculture/forestry and food systems, and the potential of this project to enhance future extramural grant applications. *Use this section to make a case to the reviewers why your research should be funded.*

(c) **Approach**. The activities proposed or problems being addressed must be clearly stated and the approaches being applied clearly described. Specifically, this section must include a description of the activities proposed and the sequence in which the activities are to be performed, methods to be used in carrying out the proposed project, feasibility of the methods, considerations of alternative methods and if the proposed method is state of the art, expected outcomes, means by which results will be analyzed, assessed, or interpreted, how results or products will be used, pitfalls that may be encountered and the alternative approaches to compensate for pitfalls, limitations to proposed procedures, a full explanation of any materials, procedures, situations, or activities related to the project that may be hazardous to personnel, along with an outline of precautions to be exercised to avoid or mitigate the effects of such hazards, and a brief timeline of the proposed project.

(d) **Justification for interdisciplinary/team approach**. Provide a justification for an interdisciplinary approach involving multiple investigators, including a presentation of the strengths of the proposed interdisciplinary team.

(e) **Plans for securing extramural funding**. Leverage of extramural funding will be used as one of the key criteria in funding decisions. Provide a list of specific anticipated interdisciplinary extramural funding opportunities to support continuation of the proposed interdisciplinary research. This must include agency name, target program, anticipated RFA release, and estimated date for proposal submission by the team to the funding program.

D. **Results from Prior AAES Support** – **2-Page Limit per prior Award per P.I./Co-P.I.** If the P.I./Co-P.I.s have received AAES funding support in the past five years, information on results from that prior funding is required. Required information includes year of previous AAES funding and dollar amount, publication list, patents, products, or other

significant research output as appropriate.

E. **Leverage of Prior AAES Support** – **No Page Limit per P.I./Co-P.I.** AAES-AIR is a seed funding program. An important measurement of its success is the leverage of additional funding from extramural sources. If the P.I./Co-P.I.s have received AAES support (as PI or Co-PI of a previously funded AAES AIR grant proposal) in the past five years, please provide a list of extramurally funded projects with information on funding agency, funding period, and dollar amount of the grants/contracts (Please do not list Auburn University intramural grants, commodity grants or industry gifts). Earmarked funding can be listed, but must be so noted. A separate list of proposals that were submitted to extramural sources, but were not funded, should also be included. This list should provide the name of each submitted proposal, the requested funding level, and the agency to which the proposals were submitted. Please include a statement on the link between the AAES seed grant(s) received by the P.I./team and each extramural proposal submitted (funded and unfunded). Note that leveraging of extramural funding is an eligibility requirement for participation in the AAES seed funding program.

F. **References Cited** – **No Page Limit**. All work cited in the text, including that of key personnel, should be referenced in this section of the application. All references must be complete, including titles and all co-authors in a professional journal format, listed in alphabetical order, using the last name of the first author or listed by number in the order of citation.

G. **Facilities & Equipment** – **4-Page Limit**. In addition to describing available equipment, list applicable items of nonexpendable equipment, and facilities in the outlying units that are necessary to conduct and successfully complete the project.

H. **Budget** - Provide a single budget for the team for each year, use USDA standard format similar to: https://aaes.auburn.edu/wp-content/uploads/sites/2/sites/2/2019/01/2-YearBudget.pdf

Appropriate Costs include:
- Salaries and Wages.
- Fringe Benefits (for FY 2020: 32.3% for full time employees, 15.9% for part time employees and 4.4% for Graduate Assistants., 0% for undergraduates).
- Materials and Supplies (including payment to human subjects).
- Travel directly relevant to proposed effort.
- Equipment (total is limited to $5,000).
- Publication Costs.

I. **Budget Justification** – **4-page limit**. Provide a justification for budget requests.

(a) Budget requests can be made for technical or postdoctoral salary support, graduate research assistantships, and undergraduate research support. AAES recognizes the importance of graduate and undergraduate training and encourages P.I.s to involve graduate and undergraduate students in agricultural research.

(b) Request for summer salary for the lead P.I. and Co-P.I.s on 9-month appointment is allowed for up to one-month salary per P.I./Co-P.I. per year; fringe benefits must be included for all salaries as appropriate. Salaries already supported by AAES funds cannot be charged to these projects.

(c) Payments for various materials, chemicals, and supplies, travel directly related to the project, publication costs, and/ or equipment (up to $5,000 total) can be requested.

(d) Projects which will be conducted in one (or more) of the AAES Outlying Stations must include an appropriate budget for the specific station(s) to support labor, equipment and supplies costs at the station. The P.I. must list the station(s) and include a statement of support (letter or email) from the station's director.

(e) Funds cannot be requested for tuition or indirect costs such as office supplies, phones, cell phones, internet service, subscriptions, memberships, laptop computers, iPads, software, desktop computers, or computer peripherals (e.g., printers, data storage, etc.).

(f) Travel budget can include funds for the investigator(s) to visit specific funding agencies or to participate in workshops that will enhance the team's ability to compete for extramural funding.

J. **Functions of Key Personnel** – Clearly describe the roles and responsibilities of the lead P.I. and Co-P.I.s.

K. **Curriculum Vitae** – Provide a biosketch for each P.I./Co-P.I., **limited to two pages in length** excluding the publications list. The CV should be limited to presentation of academic and research credentials. Do not include meetings attended, seminars given, or personal data. The publications list shall include a chronological or reverse chronological list of all publications in refereed journals during the past four years. Please indicate with an (*) publications that have resulted from previous AAES grants.

L. **Current and Pending Support Form for each P.I./Co-P.I.** – A template is available: https://aaes.auburn.edu/wp-content/uploads/sites/2/sites/2/2019/01/Hatch-Multistate-Support-Form.pdf

M. **Documentation of Collaborations** – Evidence such as letter(s) of support from Co-P.I.s and other collaborators should be

provided showing they have agreed to their assigned role in the project.

N. **Conflict of Interest List for each P.I./Co-P.I.** – You can provide an alphabetical list, or use the USDA Conflict of Interest List Template that can be found with budget pages at: https://aaes.auburn.edu/wp-content/uploads/sites/2/sites/2/2019/01/HatchMultistateConflictForm.pdf.

No additional materials, appendices, or supplementary documentation will be accepted.

PROPOSAL SUBMISSION

Application deadline: Proposals must be received by **5:00 PM, May 21, 2021**.
You will be using our AAES Grant Management System to submit your applications this year:

PROPOSAL EVALUATION

Equipment Funding
Each application will be evaluated in a two-part process. *First*, each application will be screened to ensure that it meets the eligibility and administrative requirements as set forth in this RFA. **Applications that do not meet the guidelines as stated in the RFA will be eliminated from the competition and returned to the applicant without review.** *Second*, an internal panel of AAES faculty will be convened to evaluate applications that meet these requirements for technical content, based on the following criteria:

1. **Merit of the P.I.s research program (50 points).**
   Proposals should include a section entitled *"Description of the P.I.'s research program"* to include research area, major technology or techniques used in the research, long-term research goals, research productivity, funding history, competitiveness of the research program, and the strategic direction of the research program. Please include how the P.I. will collaborate and work with others for programmatic development.

2. **Need and justification for the equipment (50 points).**
   The proposals should include a section entitled *"Need and justification for the equipment"* to explain the P.I.'s research program/project(s) for which the equipment will be used. Include how the equipment will complement or enhance the research program and allow the applicant to become more competitive for future extramural funding.

3. **Cost share amount (Mandatory).**
   The application must include the required cost share amount and sources. A minimum of 50% cost share is required. Funds from federal sources including funds from AAES Hatch grants cannot be used as part of the match.

4. **Letter of support by the P.I.'s department head/chair/director and ADR (Mandatory).**
   The letter must certify that the requested equipment is not available for the P.I.'s use. For P.I.s hired in the last five years (i.e., since 2014), the letter should also confirm that the requested equipment was not included in the P.I.'s start-up package. College of Agriculture faculty members are encouraged to review the College of Agriculture Searchable Equipment Database for availability of the requested equipment prior to soliciting a letter of certification from their department head and ADR. https://aaes.auburn.edu/equipment-database/

5. **Official vendor quote for the equipment (Mandatory).**

AgR-SEED Funding
Each application will be evaluated in a two-part process. *First*, each application will be screened to ensure that it meets the eligibility and administrative requirements as set forth in this RFA. **Applications that do not meet the guidelines as stated in the RFA will be eliminated from the competition and returned to the applicant without review.** *Second*, a review panel will evaluate applications that meet these requirements for technical content. The review panel members will consist of representation of expertise of research areas. This review panel may include internal, external, or a mix of internal/external members. In addition to the review panel, written comments may be solicited from ad hoc reviewers. The Review Panel will meet, discuss, evaluate, rank, and make recommendations for funding.

All proposals will be evaluated and ranked by the panel based on the following criteria:

1. **Overall merit of the application**, including rationale and vision for the proposed research project and its innovative nature, novelty, uniqueness, and originality, conceptual adequacy of the hypothesis, research question, or problem(s) to be addressed, clarity and delineation of objectives, adequacy of the description of the undertaking and suitability and feasibility of methodology, and probability of success of project. **(25 points).**

2. **Qualifications of proposed project personnel and adequacy of facilities**, including research productivity and quality as measured by peer-reviewed publications in high-quality professional journals, patents awarded, or products developed as reflected in the biosketch, experience, track record, and training, and adequacy of available or obtainable support personnel, facilities, and instrumentation. **(15 points).**

3. **Relevance of the project to Alabama and/or U.S. agriculture/forestry**, and a clear justification of how the proposed

project is aligned with AAES and national research priorities and how such alignments will lead to extramural funding to continue the research. **(15 points)**.

4. **Plans for securing extramural funding**, including a list of specific anticipated extramural funding opportunities to support continuation of the proposed research. This must include agency name, target program, anticipated RFA release, and estimated date for proposal submission by the team to the funding program. **(15 points)**.

Note: Leverage of prior AAES support and extramural funding effort of P.I. and Co-P.I.s, and compliance with NIFA Hatch reporting requirements <u>are key factors</u> determining eligibility for AAES funding. For researchers who were previously funded through AAES funds, demonstrated efforts of extramural funding applications are required before being eligible again for AAES funding (see Eligibility section).

The review panel will rank all the proposals into categories of **Outstanding, High Priority, Medium Priority, Low Priority,** and **Do Not Fund**. Funding decisions and funding levels will be determined based on the evaluation ranking in consideration of the availability of funds. Final funding decisions will be approved by the AAES Director. A panel summary, along with reviews, will be sent to the lead P.I. upon completion of the funding cycle evaluations.

AAES-AIR Funding
Each application will be evaluated in a two-part process. *First*, each application will be screened to ensure that it meets the eligibility and administrative requirements as set forth in this RFA. **Applications that do not meet the guidelines as stated in the RFA will be eliminated from the competition and returned to the applicant without review.** *Second*, a review panel will evaluate applications that meet these requirements for technical content. The review panel members will consist of representation of expertise of research areas. This review panel may include internal, external, or a mix of internal/external members. In addition to the review panel, written comments may be solicited from ad hoc reviewers. The Review Panel will meet, discuss, evaluate, rank, and make recommendations for funding.

All proposals will be evaluated and ranked by the panel based on the following criteria:

1. **Overall merit of the application**, including rationale and vision for the proposed research project and its innovative nature, novelty, uniqueness, and originality, conceptual adequacy of the hypothesis, research question, or problem(s) to be addressed, relevance to AAES AIR priority areas, clarity and delineation of objectives, adequacy of the description of the undertaking and suitability and feasibility of methodology, and probability of success of project. **(25 points)**.

2. **Justification for interdisciplinary/team approach**, including a presentation of the strengths of the proposed interdisciplinary team. **(15 points)**.

3. **Qualifications of proposed project personnel (P.I. and Co-P.I.s) and adequacy of facilities**, including research productivity and quality as measured by peer-reviewed publications in high-quality professional journals, patents awarded, or products developed as reflected in the biosketch, experience, track record, and training, and adequacy of available or obtainable support personnel, facilities, and instrumentation. **(15 points)**.

4. **Relevance of the project to Alabama and/or U.S. agriculture/forestry**, and a clear justification of how the proposed project is aligned with AAES and national research priorities and how such alignments will lead to extramural funding to continue the research. **(15 points)**.

5. **Plans for securing extramural funding**, including a list of specific anticipated interdisciplinary extramural funding opportunities to support continuation of the proposed interdisciplinary research. This must include agency name, target program, anticipated RFA release, and estimated date for proposal submission by the team to the funding program. **(15 points)**.

Note: Leverage of prior AAES support and extramural funding effort of P.I. and Co-P.I.s, and compliance with NIFA Hatch reporting requirements <u>are key factors</u> determining eligibility for AAES funding: For researchers who were previously funded through AAES funds, demonstrated efforts of extramural funding applications are required before being eligible again for AAES funding (see Eligibility section).

The review panel will rank all the proposals into categories of **Outstanding, High Priority, Medium Priority, Low Priority,** and **Do Not Fund**. Funding decisions and funding levels will be determined based on the evaluation ranking in consideration of the availability of funds. Final funding decisions will be approved by the AAES Director. A panel summary, along with reviews, will be sent to the lead P.I. upon completion of the funding cycle evaluations.

AWARD NOTICE

Upon the completion of funding decisions, the lead P.I. will be notified. The award announcement will include the following:

- Title of project.
- Project period, specifying the duration of the project AAES intends to support the project without requiring re-competition for Funds.
- Total dollar amount as approved by the AAES Director during the project period.

- Instructions on expectations and completion of the required REEport forms.

*Note: Equipment support awards must be expended by September 15, 2020. Your department is responsible for preparing the necessary paperwork to purchase and pay for the equipment. The AAES Business Office will provide a FOP for the award portion of the funds. No-cost extensions will **NOT** be allowed.*

REQUIREMENTS FOR APPROVED PROJECTS AND RELEASE OF FUNDS

In order to reduce redundant reporting, a single page Award Acceptance Form will be included as a part of the AAES ARES award notice. On this form, the P.I. will be asked if the proposed project falls under the scope of his/her existing Hatch project or Hatch/Multistate project(s) (please note: participation in multistate project is insufficient, the P.I. must have a Hatch/Multistate project number). If the answer is yes, then the P.I. will be asked to pledge by signing that all the methodologies and procedures in the project are covered by the existing Hatch/Multistate project in compliance with federal and state regulations concerning human subjects, animal welfare, recombinant DNA, and any other hazardous materials, and that the P.I. will comply with all the reporting requirements set for Hatch projects or the AAES/Multistate Funding program. If the proposed project **does not** fall under the existing Hatch or match/Multistate project(s), the P.I. must complete the following before the release of funds:

1. The awarded proposal must be entered into REEport as a new project.

2. Each year, a progress report must be completed in the REEport system for the period of October 1 to September 30. Hatch funds will be withheld if reports are not completed to the satisfaction of the Director. A final report will be filed in the last year of the project covering the last year only.

3. Recipients of AAES ARES Program Funds will be expected to work with the Office of Ag Communications and Marketing to communicate their results, impact and success stories to the public.

4. Recipients of AAES ARES Program Funds are required to acknowledge USDA-NIFA and AAES support in their materials (i.e., publications, presentations, etc.) using the following suggested language: **"This (material, project, data, publication, presentation, etc.) is based upon work that is supported by the Alabama Agricultural Experiment Station and the National Institute of Food and Agriculture, U.S. Department of Agriculture."**

5. Approvals for work with animals, human subjects (including those participating in surveys), hazardous materials (including biological agents and toxins), and recombinant DNA are required. Such approvals must be finalized and documented by completing the Assurance Statement in the project initiation, by using the project change tabs in REEport, or by signing the P.I. Pledge Form prior to release of funds for approved projects. The P.I. should notify the research office when these forms are completed. Information for each category is listed below.

   - **Animals** – an approved Animal Subjects Review Form (ASRF) will be needed for approved projects before funds are released. More information can be obtained at: https://cws.auburn.edu/OVPR/pm/compliance/iacuc/forms
   - **Recombinant DNA, Radioactive Products, Hazardous Materials, and Biologicals** – contact the Office of Safety and Environmental Health, Leach Science Center, 844-4870. More information can be obtained at: https://cws.auburn.edu/OVPR/pm/compliance/ibc/forms
   - **Human Subjects** – training and IRB approvals needed. More information can be obtained at: https://cws.auburn.edu/OVPR/pm/compliance/irb/forms

REPORTING REQUIREMENTS

Funding for AgR-SEED and AIR grants will be approved on an annual basis, contingent upon the availability of funds and based on the project's successful progress. Award recipients are required to submit a Progress Report by September 15, 2021, summarizing Year 1 project activities, deliverables and accomplishments. One major expected Year 1 deliverable is submission of at least one competitive extramural grant proposal (i.e., a peer-reviewed competitive grant program) based on (or directly related to) the funded AAES seed grant by September 15, 2021. The Progress Report must include the following: i) a statement on the link between the AAES seed grant and the extramural proposal submitted, ii) cover form, summary, objectives and project narrative sections of the extramural proposal, iii) review panel summary for the extramural proposal (if it has been reviewed by a panel). **Note that Release of Year 2 funding is contingent upon meeting the above requirements**.

A Final Performance Report will be due within ninety days after the end of the award period. The report must detail all aspects of the project, including all products, deliverables and outcomes and efforts to leverage funds. Any publications and presentations deriving from the funded project must acknowledge support from the Alabama Agricultural Experiment Station and USDA NIFA Hatch program.

Additional Information:
Applications containing proprietary information will be evaluated with due consideration for protection of this information to the extent permitted by law. Therefore, any information that the applicant wishes to have considered as confidential, privileged, or proprietary should be clearly marked within the application.

PROPOSED TIMELINE

March 19, 2021	Anticipated Release Date for RFA
May 21, 2021	Proposal due date (5:00 pm). Submit online: https://grantmgt.acesag.auburn.edu
June-July 2021	Proposal Review and Panel Meeting; Funding Recommendations
July 2021	AAES Director will finalize & approve funding decisions, final decisions will be communicated to P.I.
August 2021	P.I. completion of requirements for release of funding; Funded equipment purchases
October 1, 2021	Project start for AgR-SEED and AIR projects, pending NIFA approval
September 15, 2021	Year 1 Progress Report Due for AgR-Seed and AIR grants. Note that Release of Year 2 funding is contingent upon meeting the required deliverables including submission of at least one competitive extramural grant proposal by September 15, 2021

CONTACT

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