

**Agricultural Research Division**  
Institute of Agriculture and Natural Resources  
University of Nebraska-Lincoln

**RESEARCH PROJECT DEVELOPMENT AND REVIEW PROCESS**

**Mandate:**

The U.S. Congress approved the original Hatch Act in 1887. The legislation established funding for agricultural experiment stations (ie Agricultural Research Division) within all land-grant Universities. The stated aims of this legislation were:

- *to promote the efficient production, marketing, distribution, and utilization of products of the farm as essential to the health and welfare of our peoples*
- *to promote a sound and prosperous agriculture and rural life as indispensable to the maintenance of maximum employment and national prosperity and security.*
- *to assure agriculture a position in research equal to that of industry,*

To accomplish these aims, agricultural experiment stations are mandated to spend authorized appropriations “...to conduct original and other researches, investigations, and experiments bearing directly on and contributing to the establishment and maintenance of a permanent and effective agricultural industry of the United States, including researches basic to the problems of agriculture in its broadest aspects, and such investigations as have for their purpose the development and improvement of the rural home and rural life and the maximum contribution by agriculture to the welfare of the consumer...”

The appropriations (called formula funds or base funds) are provided to ARD with an equal match of state funds required.

**Amendment:**

The Hatch Act was amended by Congress in 1998 (The Agricultural Research, Extension, and Education Reform Act of 1998 or AREERA). The amendment mandates (among other things) that ***all formula-funded research (including multistate research) undergo scientific peer review***. Meeting this review requirement is the responsibility of the individual experiment stations.

**TYPES OF PROJECTS**

**Hatch, Animal Health, McIntire Stennis:** the project meets USDA, IANR and department priorities

**State:** the project meets departmental priorities beyond those of USDA

**Multi-state Project:** the project addresses research on topics of high priority among the State Agricultural Experiment Stations (SAES) and in partnership with the Cooperative State Research, Education, and Extension Service (CSREES). These projects are beyond the scope of a single Agricultural Experiment Station or Research Division thus requiring a multi-institutional, multi-disciplinary approach.

**New Project; Hatch, State, Animal Health, McIntire Stennis :** documented planning for a five-year research activity generated from a single experiment station. The research focuses on a clearly definable problem, a manageable phase of a larger problem, or a few closely related elements of a broad-based research program. Each project outline includes information on: a) WHAT is being done, b) WHO is doing it, c) WHERE it is being conducted, d) WHEN it is performed, e) IMPACT expected (including publications produced) and, f) BUDGETARY needs (including potential for external funding) ***\*\*New Hatch and State projects require and full peer review of scientific merit.***

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**Revised Project; Hatch, State, Animal Health, McIntire Stennis** : documented planning for a five-year research activity that is a continuation of a previously approved project. Revised projects must have the same or very similar title, updated objectives that demonstrate continuation from or expansion of objectives from the previous project, a progress report and publication record, and predicted 5-year budgetary needs. ***\*\*Revised Hatch and State projects require a modified review with the Department Head and ARD Dean or Dean's representative.***

**Extended Project; Hatch, State, Animal Health, McIntire Stennis**: at the end of the 5 years, a one-year extension can be requested by the Department Head to complete the objectives of the project. ***\*\*A new project is required by the end of the one year period***

**Multistate projects**: Please see the comprehensive guide to multi-state projects at <http://www.wisc.edu/ncra/>  
***\*\*Reporting outlines for Nebraska contributions to approved multistate research activities must follow a specific format and must be reviewed by a modified process with Department Head and ARD Dean/Dean's representative.***

## BRIEF GLOSSARY

**Impact** The economic, social, health or environmental consequences derived as benefits for the intended users. These are usually quantitatively measured either directly or indirectly as indicators of benefits. (An example is improved human nutrition through genetically engineering rice to contain the precursors to vitamin A.)

**Indicators** Surrogate measures of research outcomes or benefits, often used when directly measuring research outcomes or benefits would not be feasible. (For example, an indicator of improved water quality might be the increased use of biological control technologies in crop agriculture.)

**Milestone**: A time line-linked accomplishment that needs to be completed before subsequent activities can begin, or can be completed. As an example, to genetically engineer a crop by 2005 a transformation method needs to be reduced to practice by 2002 (a milestone).

**Outcome**: Outcomes describe the significance of the results, showing in what ways the end user will benefit. (For example, the outcome from the adoption of a new cultivar might be increased production, or greater profitability.)

**Output**: Outputs are the results of research activities, such as data, information, biological or physical materials and observations. (For example, the output from a plant-breeding program might be a named variety. The output from a survey might be the analyzed survey results.)

**Professional Year**: This is the portion of time for persons who hold positions in professional categories and who are assigned to research activities of the project. Such professionals usually hold a bachelors and/or masters degree(s). Graduate students, by virtue of their degree and acceptance in graduate school, may be categorized as "professionals."

**Scientist Year**: This is the portion of time for scientists (Assistant Professor, Research Assistant Professor and above) who are responsible for creative scientific study, thought, originality, judgments, and accomplishments directly assignable to the activity reported.

**Stakeholder or end-user**: Individuals, or groups of individuals, or organizations/institutions with a direct interest in the outcome of public investments in agricultural research and education. This could be producers of agricultural products, consumers of agricultural products, or sponsors of research activities from federal and state governments.

**Technical Year**: This is the portion of time for technicians, aides, and laboratory assistants assigned in support of a project or an activity.

## The Project Outline

The development of a research project outline is the basic instrument for planning and conducting research in ARD. The outline should serve as a dynamic, working document; with frequent evaluation and alteration as new findings develop. It should clearly define some initial studies while allowing the scientist the opportunity to be visionary. It should also allow flexibility to alter the direction of research as new findings are developed. ARD outlines usually *do not* include the researcher's total research activity and they are *not* expected to be completely achievable within the proposed duration. Conceptually, an outline should challenge the scientist to expand research beyond its current level.

## Process for New Projects

All new Hatch, State or Regional Research project proposals will be reviewed by the following process:

1. **Informal Review:** The project leader is encouraged to discuss project ideas with disciplinary peers and colleagues
2. **Department Review:** The project leader develops and submits the project outline to the Department/Chair for review and approval. The Department Head/Chair will determine the need for an ad hoc departmental committee to review the proposal.
3. **Submission to Dean's Office:** The Department Head/Chair submits the outline to the Dean of the ARD identifying any ad hoc reviewers and recommending individuals to participate on an ARD Peer Review Panel. Project outlines developed by faculty located at the district research and extension centers must also be approved by the Center Director.
4. **Peer Review:** The ARD Dean's Office will check the outline for completeness and will appoint a peer review committee, schedule the review and send each panel member a copy of the proposed project for evaluation before the review. ARD Peer Review Panels are chaired by a representative from the ARD Dean's office. The Panels typically include the Department Head/Chair, District Director if applicable, and three or four faculty from across ARD with project-related expertise. A representative from the Department of Statistics will also serve on the panel when appropriate.

Peer reviewers are asked to base their evaluation the following (*see complete form at:*

- *Does the project address identified priority area?*
- *Have the results of the CRIS search been clearly described?*
- *Are the objectives clear and are the procedures clear and matched to the objectives?*
- *Is the proposed project feasible?*
- *Are there potential environmental, economic, and/or social impacts?*
- *Is there potential for development of intellectual property development?*
- *Are the resources realistic? Is there potential external funding?*
- *Are the expected impacts and outcomes for ARD's stakeholders described?*
- *What specific suggestions would improve the proposal?*

If modification or revision of the outline is requested, the ARD representative will summarize discussion and specific comments in a letter to the project leader. The project leader is expected to address all issues identified by the ARD representative in the transmittal letter of the revised project outline to the Department Head/Chair (through the REC Director, if applicable).

## Process for Revised Projects

A project leader may elect to revise an on-going research project outline instead of developing a new project outline if:

- the project outline is reviewed and approved **before** the termination date of the previous project;
- the research area remains a **high priority** for the investigator, department and ARD, and;
- the project **title** remains the **same** and project **objectives are similar** to the previous project.

Because revised projects were originally reviewed when the project was first initiated, a Modified Review will be used. Review must be completed before the project termination date or it will be handled as a new project.

1. **Informal Review:** Same as for a new project.
2. **Departmental Review:** Same as for a new project.
3. **Submission to Dean's Office:** The Department Head/Chair submits the outline to the Dean of the ARD identifying any ad hoc reviewers and people who have previously reviewed the project. A nontechnical **"Statement of Accomplishments"** should accompany the proposal when submitted to the ARD Dean's Office. The statement should highlight the most significant results and should not exceed 250 words in length.
4. **Divisional Review:** The Division Review Panel will be chaired by the ARD Dean's Office representative and will include the Department Head, the District Center Director (if applicable) and the project leader(s). The same questions listed in the Peer Review section for a new project will be considered in evaluating revised projects including use of the "Research Proposal Peer Review Form."
5. **Preparation of Final Outline and CRIS Forms:** Same as for a new project.
6. **Project Approval:** Same as for a new project.

## Nebraska Contribution to a Multi-state Project

Multi-state Research Projects are subjected to intensive review prior to their approval at the federal level therefore; a modified review is used to evaluate the Nebraska contribution to the regional project. The specific objectives and research protocol of the regional project that Nebraska researchers will address are reviewed. The entire regional research proposal should be submitted as an appendix to the work proposed for Nebraska.

### Review Process Nebraska Contribution to a Multi-state Project

1. **Informal Review:** Same as for new project.
2. **Departmental Review:** Same as for new project.
3. **Submission to the Dean of ARD:** Same as for a revised project excluding "Statement of Accomplishments"
4. **Divisional Review:** Same as for a revised project.
5. **Preparation of Final Outline and CRIS Forms:** Same as for a new project.
6. **Project Approval:** Same as for a new project.

## Extension of a Research Project

A research project may be extended for up to one year past the termination date if additional time is needed to complete project objectives. A formal request must be initiated and justified by the project leader and approved and forwarded to ARD by the department head **30 days prior to the termination date**. Faculty at

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the Research and Extension Centers (REC) must transmit all correspondence through the REC Director. The Dean of the ARD will make the final decision on extending a project. If an extension is granted, a revision of the project is no longer an option. At the end of the extension, the project must be terminated and new project proposal submitted.

**\*\*\*REQUIRED FOR ALL PROJECTS\*\*\***

**Preparation of Final Outline and CRIS Forms:**

The final project outline, after completing any necessary revisions, must be submitted electronically to the ARD office. The project leader must also submit online information to the Current Research Information System (CRIS). These forms are: AD 416, AD417 and Assurance Statement(s) CSRS 662. Proposals cannot be submitted for final approval by CSREES until these forms are completed and an electronic copy of the project outline is provided to the ARD office.

If the project involves Recombinant DNA or RNA research, Vertebrate Animals or Human Subjects, the project must be approved by the appropriate university committee:

- **Recombinant DNA or RNA Research** - BioSafety Committee
- **Vertebrate Animals** - Institutional Animal Care and Use Committee (IACUC)
- **Human Subjects** - Institutional Review Board (IRB)

Directions for completing AD416, AD417 and Assurance forms are available at <http://ard.unl.edu/proposal.html>

**SUMMARY OF THE PROJECT OUTLINE APPROVAL PROCESS**

1. **Departmental Approval** – The Department Head/Chair and, when appropriate, the District Director approval of the final project outline. Depending on the project type, outline approval will be based on informal and formal peer review.
2. **Approval by the ARD Dean's Office** – The ARD Dean's office submits approved projects to USDA/CSREES when the final project review is received and the researcher has submitted online AD416, AD417 and Assurance forms.
3. **USDA Approval** – The Administrator of the Cooperative State Research, Education and Extension Service (CSREES) reviews the project outline for final approval. Formula or Multi-state funds are allocated to the ARD office based on ARD researcher activity as documented by completion of the project outlines, AD416, AD417 and Assurance forms.