

PROPOSAL FORMAT

Proposals should be single spaced with 1” margins, using Times New Roman, Arial, Helvetica, or Palatino font no smaller than 11 pt. Please proofread the proposal carefully. The page limit is six (6) pages from the Title to, but not including, the List of Referenced Publications. The Justification is usually about three to four paragraphs and rarely exceeds a page. The length of the Previous Work and Present Outlook section varies a great deal depending on how much work has gone on recently in the field and how concisely it can be summarized. In general this section runs about two pages. The Objectives are simple sentence statements. Most proposals have one to three objectives. Quite often reviewers have problems with a large number of objectives as being too ambitious for the time and funding allowed or that the proposal lacks a focus. However, this is not always the case. The Procedures sections also vary a great deal in length. Obviously the more objectives one has the greater the description of the procedures. The average length for procedures sections is about two and a half pages. Proposals should be submitted electronically in a single MS Word document attached to an email to cathy.neri@unh.edu with a copy to chris.neefus@unh.edu

The titles printed in bold and underlined must be contained in the project proposal. There is a brief description following the titles which explains what is to be contained in each section unless it is quite obvious.

The header on the page one should be the following:

PROJECT OUTLINE
COLLEGE OF LIFE SCIENCES AND AGRICULTURE
NEW HAMPSHIRE AGRICULTURAL EXPERIMENT STATION*
Department of
Hatch 000 or McIntire-Stennis 000
leave space here for typing in approval date later

*McIntire-Stennis projects substitute **UNIVERSITY OF NEW HAMPSHIRE** (for NH-AES)

TITLE: The title should be brief, clear and specific. Avoid such obvious phrases as “a study of” or “the investigation of”. The title must be limited to 140 characters (including spaces).

PROJECT TYPE: Standard Project Research Development Project

If not approved as a Research Development Project, please reconsider as a Standard Project

JUSTIFICATION: (starts on the same page as the Title) This is a statement of (1) the importance of the problem to the agriculture, forestry, natural resource management, rural life, and the general public of New Hampshire, the region or the nation; (2) the needs to be satisfied, the problem to be solved and the importance of doing the work now and at this station; and (3) the ways in which public welfare or scientific knowledge will be advanced. An estimate of the monetary value of the crop or industry and the possible returns from the successful accomplishment of the project would be in order. The nature of the project will obviously determine the ease of predicting possible success, but where feasible it will be appropriate to indicate the likelihood of achieving the goals in the specified length of time.

PREVIOUS WORK AND PRESENT OUTLOOK: A brief summary covering the pertinent research related to the problem (citing only the more important and recent publications); the status of the current research; and the additional research needed to supply the solution to the problem stated in the **JUSTIFICATION**. Quite often this section ends with a very brief (one to three sentences) statement of the research to be undertaken.

OBJECTIVES: These should be numbered, concise, clear and logically arranged statements defining the specific objectives of the project. These should be the ends or goals that will be accomplished in the project period proposed, not long term objectives. How you will accomplish these objectives should not be included here but rather in the next section.

PROCEDURES: There should be a statement of procedures to correspond to each objective. Procedures common to a number of objectives can be put into a paragraph(s) preceding descriptions for specific objectives. These statements should outline the methods that will be used to attain each of the objectives. Minute details of procedures should not be stated. However, enough detail is needed such that a professional in this field can determine if the methods to be used will be successful. The procedure section should indicate that the research has been planned carefully and that the proposed experiments will provide the data and information needed to meet the objectives.

Where it is appropriate, the experimental design should provide data suitable for statistical analysis. There should be sufficient information on design, number of replications, and the statistical evaluation that will be used, for the reviewers to be able to judge their appropriateness. Proposals with poor or inadequate experimental designs are unlikely to be funded.

If the project is a cooperative one, the division of effort and coordination should be made clear.

When appropriate, alternative procedures should be given. Be careful that the experiments or procedures proposed lead to the attainment of the objectives.

PROBABLE DURATION: “ ____ years” is all that is required. Standard NH AES projects are normally three years. Research Development Projects are limited to two years.

FINANCIAL SUPPORT: The NH AES provides funds for salaries, research assistantships (Research Development Projects only) and research support (supplies etc.). New Standard AES Projects starting in October 2008 will have an annual research support budget of \$6000. The annual support budget for Research Development Projects will be \$12,000 (\$10,000 for supplies and \$2,000 for travel). The AES Office will add the support dollar figures to the final proposal sent to USDA. Three blank lines should be written into the proposal, labeled: Salaries, Research Support, and Total. Please leave each line blank (no numbers).

PERSONNEL: The name of the project leader(s). This is the PI only; do not list graduate students, technical personnel or post docs.

INSTITUTIONAL UNITS INVOLVED: Where a project is cooperative between two or more UNH departments, both should be listed. Both department chairs should be involved during the project development stages.

COOPERATION: Where an agency outside UNH is a formal cooperator in the project they must be listed. If cooperation is a collaborative venture with no funds being supplied by the other agency they are not to be listed.

RECOMMENDED:

_____	_____
Project Leader	Date
_____	_____
Department Chairperson	Date

APPROVED:

_____	_____
New Hampshire Agricultural Experiment Station	Date

REFERENCES: Only those publications cited should be listed. Use the format of one of your major journals. Start references on a new page.

CURRICULUM VITAE: (start on a new page) Should be limited to 2 pages. Include a maximum of 5 relevant publications and no more than 5 additional recent and/or significant publications.

CURRENT & PENDING SUPPORT: A summary of all current and pending research support by grants, contracts and cooperative agreements must also be furnished. This should include the title of the project, the names of the PI's, funding agency, duration, and funding for the work (direct costs) for each project year. Please include any planned applications for support that will be submitted within the next 6 months. Provide a separate list of unfunded proposals submitted within the last 5 years including the title, PI's, funding source, and requested amounts.

FACILITIES: A description of the resources available to do the work may also be necessary and should consist of one or two paragraphs describing what laboratory facilities, farms, greenhouses, forest plots, major pieces of equipment, databases, population study groups, etc., are available and will be utilized by the investigator. Anything essential to the success of the project should be mentioned if it is available. Reviewers tend to conclude that if something is omitted then it is not available.

APPENDIX: (required only for Research Development Proposals)

Research Development Grants are awarded for preliminary investigations that will strengthen the investigators chance for obtaining additional funding from external sources. Research Development Grants come with the following expectations:

- 1) By the end of the two year project, the PI is expected to develop and submit a competitive proposal to an external source (eg. NSF, USDA, NOAA, etc.) requesting at least two years of funding (preferably 3 or more) at a level of at least \$100k per year (preferably >\$120k), with full indirect costs. It should include full support (stipend and tuition for the academic year and summer stipend) in each year for at least one graduate student.

- 2) The PI and/or graduate student must submit at least one manuscript based on the Research Development Project for publication in a peer reviewed scientific journal.
- 3) The graduate student would be expected to present a paper or poster at a national or international meeting.

Until these expectations are met, the PI would not be eligible for any additional AES funding.

Proposal for Research Development Projects should include an Appendix (2 page maximum) detailing how the 3 requirements will be met. It should include a description of the funding program(s) to which the proposal will be submitted, the submission deadlines, the funding guidelines, etc, and a discussion of how well the PI's research fits the program priorities and guidelines. If a previous proposal for this research has been submitted to any agency, provide a synopsis of the reviews. If the research has already been funded elsewhere you need to justify this request. Research Development Grants are not intended as supplements to existing funding.

The Appendix should also clearly indicate when and where the manuscript will be submitted, plus the dates and venue anticipated for the graduate student presentation.

A goal of the Research Development Grant program is to increase graduate student enrollment by allowing you to offer competitive support packages to graduate program applicants. It is generally expected that the graduate student funded by the project will be new. If you plan to support an existing graduate student instead, it should be clearly stated and justified in the Appendix. Under no circumstances should the grant be used to extend the support of graduate students beyond the normal timeframe of departmental support.

There is enough flexibility in the requirements to accommodate differences in indirect cost rates and graduate student tuition support from different agencies and industry. For example, it would be possible to meet the proposal submission requirement via two or more, smaller proposals and/or contracts as long as the combined funding matches the minimum expectation. If you anticipate trying to meet the requirements in what might be considered a "creative" way, you should discuss it with the NH AES Associate Director or Director before submitting the proposal.

Potential Reviewers: On a separate page, or in the body of the email to which the proposal is attached, the principal investigator must supply the names, phone numbers and email addresses of five potential peer reviewers not on the faculty or staff of the University of New Hampshire. The reviewers do not have to be associated with an Agricultural Experiment Station but it is better if they are since they would be more familiar with Hatch and McIntire-Stennis proposals.

PROPOSAL REVIEW PROCESS

EXTERNAL REVIEWS

The New Hampshire Agricultural Experiment Station has an agreement with the Cooperative State Research, Education and Extension Service (CSREES) of USDA that all proposals for which we intend to expend federal funds must be reviewed by at least two reviewers external to UNH. The principal investigator must supply the names of five peer reviewers to the Associate Director. Two or more of these are selected to provide written evaluations of the proposal. The reviews are provided to the principal investigator anonymously unless the reviewer(s) specifically state that their name can be divulged to the author. If the reviews do not seriously question the work and the principal investigator agrees with the comments of the reviewer, the author can revise the proposal to reflect the suggested changes. If the principal investigator disagrees with the reviewer, the principal investigator must provide the AES Associate Director, in writing, the reasons for not agreeing. If the reviewers have serious reservations about the work, the investigator must revise the project and it then will be sent to two additional reviewers. This process is used for all new and revised proposals in both the Hatch and McIntire-Stennis program.

INTERNAL REVIEW

The AES Advisory Committee (AES-AC) is composed of six faculty members from the College including two from each of the three new departments. At least one of the committee representatives will hold an Extension appointment. They will serve staggered terms. They cannot consider their own projects during their term on the committee. Because the AES generally cannot fund all the proposed received, the proposals to be funded will be selected by a panel consisting of the AES-AC, the Director, and Associate Director. Using the criteria below, the panel will evaluate the proposals based upon the proposal content, the reviewers' comments, the PI's responses.

CRITERIA USED BY THE PANEL

The following criteria will be used to evaluate each proposal.

1. Justification of the Project in Relation to the NH AES Land Grant Mission (25pts)
2. Scientific Merit (45 pts)
3. Rationale of Objectives and Procedures (15 pts)
4. Probability of Success (15 pts)
5. Previous Years' Progress Reports (5 pts)

Justification: Importance and/or relevance and applicability of proposed project to the NH AES priority topics. Although the NH AES will fund basic and applied research, significant weighting is given to the importance of the problem to the agriculture, forestry, natural resource management, rural life, and the general public of New Hampshire, the region or the nation; the needs to be satisfied, the problem to be solved and the importance of doing the work now and at this station; and the ways in which public welfare or scientific knowledge will be advanced.

The significance and applicability to state, regional or national needs should be explained explicitly and carefully by the author. The investigator cannot depend on the Panel to infer this for the author as they read and evaluate the proposal. It should not be assumed that the Panel is conversant with the implications of a project - these need to be explained carefully in non-technical language in the Justification section.

Ideally a project will be directed at a problem, issue or question that is important to New Hampshire or the region. Of course, a proposal can be directed at a national or international issue or problem that, if solved, has intrinsic value to the citizens of New Hampshire. The Panel realizes that basic research and scholarship is not constrained by state, regional, or national boundaries, whereas problems based on the application or development of technology often are of marked regional significance.

Scientific and Technical Merit: Scientific merit is an assessment of the proposed work in relation to the following questions. Will the project add to the pool of basic or applied knowledge concerning this topic? Will our understanding and comprehension of a process be increased significantly? Will the answer to the question posed add an important increment to our knowledge about this system or problem? Where a sufficient amount of basic knowledge about the system exists, does the proposal utilize this knowledge to present a potential solution to the problem?

Rationale of Objectives and Procedures: The Objectives are a statement of the specific goals of the proposal. If the goals are attained then it should be obvious to the reader how they solve or add to the solution of the more general problem posed in the Justification section. Each objective should be clear, concise, and attainable. The objectives are not to be long-term goals but rather discrete units that can be achieved in the two or three year lifetime of the project. The Procedures are the methods that will be utilized to attain each of the goals. The Procedures should have sufficient detail so that someone familiar with the discipline can make a judgment as to whether these procedures have a high potential for success and if completed as presented will allow the Objectives to be attained.

Probability of Success: The probability of success is based in part on whether or not the Objectives are realistic and how well the proposed Procedures address the Objective, but it also encompasses the PI's plan to publish the findings and to use the results to strengthen future proposals for external funding. History of completing previous projects and the publication record of the investigator are considered here, but heavier weight is given to how the project will advance the PI's current and future research program. For Research Development Proposals, the Appendix is carefully considered here.

Previous Years' Progress Reports: All Proposals will start with 5 pts. Points will be deducted only if Annual Accomplishment Reports (AD-421) indicate lack of progress or effort on previous AES projects.

January 2008