



FATS AND PROTEINS RESEARCH FOUNDATION

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Request for Proposals

The FPRF is under new direction, following an aggressive strategic planning process that began in early 2010. In addition to increasing focus and direction in our requests for proposals to ensure research funded is important to renderers, efficient, and effective, we will be engaging more with researchers and will be using various methods to communicate results. We will use methods that worked in the past and new methods that show promise.

Research Priorities

Long term view: Since our funds are limited, we desire to obtain as much information as possible from our research grants. The research objectives for rendered by-products should be directed toward solving a significant problem, improving product safety/quality, chemical or biological modifications to increase value or nutritional studies to improve their utilization in animal diets.

For the near term, FPRF has decided to focus work in aquaculture, swine, and poultry nutrition aiming directly at gaps in the current knowledge necessary for diet formulators, including critical work in nutritional characteristics of rendered products. Significant research funding will be dedicated to these nutrition studies. Any research institution can compete for these funds by submitting “at-large” proposals to FPRF in formats described in this document.

FPRF also has a continuing relationship with Clemson University for support of the Animal Co-Products Research and Education Center (ACREC). The priority at ACREC is to provide data that will support validation of cooker operations and thermal death times of salmonella, clostridium, and other feed/food safety hazards among other plant operations issues. Significant investments have been made at ACREC to develop a critical mass of science and experience on these issues.

At-large proposals outside the priority topics outlined above will be considered, as will at-large proposals on biosecurity or new uses from institutions outside of ACREC, but a very compelling case will need to be made for FPRF to shift intended priorities.

Evaluation Criteria

An FPRF committee of industry representatives and scientists will evaluate proposals using these criteria:

- **Relevance and Originality** - The proposal will be evaluated for its potential to make a major contribution to the existing body of knowledge. FPRF would like to know how the proposed new work will fill gaps in current information and can lead to improvements in operations, product safety, or to increase usage of rendered products.
- **Literature Review** - We expect researchers to complete a thorough literature search to avoid unnecessary duplication, dead ends, or problematic methods.
- **Technical Merit and Feasibility** - The proposed methodology should be clearly defined with respect to overall design, timeline, materials and research tools, sampling and analysis, etc. The objectives and scope of the study must be feasible with the proposed design, time, and resources.
- **Cost/Benefit** - The potential benefit to the industry should justify the investment. Estimates of economic impacts of results should be provided along with marketing challenges.
- **Qualifications of Applicant(s)** - The researcher(s) should have the academic qualifications, competence, and track record to undertake and complete the proposed research successfully. Demonstration of knowledge of current thinking, other experts, and needed data in the field will be an advantage, as will proposals that engage more than one location or university.
- **Budget** - The budget should be itemized and realistic. It is an advantage if funding from other sources is available to support the work including in-kind support from the research institution.

Pre-Proposals

Applicants unsure of the fit of their idea to FPRF priorities, industry understanding of the problem posed, or any other aspect of their research idea can submit a brief pre-proposal electronically to the Foundation. Email a Microsoft Word document or Acrobat PDF document to Charles Starkey at cstarkey@nara.org on or before March 15th for consideration at the Spring meeting and September 15th for the Fall meeting. FPRF will evaluate the idea, and if found to have merit, the applicant can submit a full proposal for the selection process six months later. This does not guarantee funding, and the researcher must still submit a full proposal in a subsequent funding period as described below to receive funding.

Format for Submitting Full Research Proposals to FPRF

Applicants should submit their proposal electronically to the Foundation by emailing a Microsoft Word document or Acrobat PDF document to Charles Starkey at cstarkey@nara.org on or before March 15th for consideration at the Spring meeting and September 15th for the Fall meeting. Funding of proposals is decided in early May and November. Dr. Charles Starkey is Sr. V.P. of Scientific Services for the North American Renderers Association, and Director of Technical Services for the FPRF.

Cover Sheet

Title of Project
Name of University (or Research Organization)
Principal Investigator (project leader or contact person)

Complete address, telephone number, and email address
Department
Co-Investigators
Date Submitted
Total Funds Requested
Duration of Project
Keywords (up to four) (optional)

Note: If the project will be administered by a University or Experiment Station Official, provide the name, address, and email address of the Official.

Abstract

The second page of a proposal should include an abstract limited to one page of double-spaced typing. It should include the following:

- A brief statement of the problem or need to be investigated.
- The approach to be made to fill this need or improve usage of rendered products. What does the researcher propose to do that will contribute to a solution of the problem?
- What is the possible value to the industry if the research is successful? Please estimate the increased utilization of animal by-products that would be expected if this research is successful.

Proposal

(Note: Please limit items 1-6 to 10 or fewer pages if possible.)

1. Title of Project
2. Investigator(s)
3. Objectives. List the specific goals of the project.
4. Literature Review: (a) Please cite known research on the same subject.
(b) Indicate how this proposal differs from other known research.
5. Justification. Justify the proposal in light of current industry practice or problems, and discuss the short- and long-range benefits potential of meeting the objectives.
6. Procedures. Outline the protocol designed to meet the objectives, including the experimental design replications, diets, etc. (Experimental diets must be included).
7. Resume of Investigator (one page).
8. Current research on subject (if any) by Investigator.
9. Facilities and equipment required and available for this project.
10. Research timetable: (a) Date project is scheduled to begin.
(b) Date project is scheduled to end.
11. Personnel support provided by the university or research organization.
12. Financial support: (a) From the university or research organization.
(b) From other sources, including those from whom other funds for this project is requested.
13. Institutional units involved.
14. Budget. List direct costs attributed to the project. Please itemize all areas of need. Include cost per animal unit. The budget should reflect as accurately as possible the cost of doing the research. Outline total funds requested.
15. Indirect costs. Salaries and fringe benefits for professional staff members and other university overhead cannot be a part of the research budget proposal.

16. Rendered products for use in research should be obtained from a FPRF company member to be coordinated by the FPRF staff. All rendered products used in experiments must be analyzed and characterized to be approved by the Charles Starkey or designated FPRF staff. The processing conditions and the raw material components of the rendered products should be documented. Any product costs or expected product donations are to be outlined clearly in the proposal. All references to the rendered products used in reporting and publication must use the correct terminology for describing such products.

In order to standardize proximate analysis of rendered proteins and fats, and to reduce between-lab variation from study to study, FPRF requests that these basic analyses be conducted at this lab: N P Analytical Laboratories, St. Louis, MO, Contact: Judy O'Brien, Ph: 314-982-2193; email: Judy.OBrien@purina.nestle.com.

Amino acid analysis of rendered proteins should be standardized as well, and thus done at the University of Missouri lab: Dr. Thomas P. Mawhinney, Director, Experiment Station Chemical Laboratories, Room 4 Agriculture Building, University of Missouri, Columbia, MO 65211-7170.

Please include the following analyses of the finished products being studied in the project:

PROTEINS - Protein, Fat, Total Dietary Fiber, Moisture, Ash, Calcium, Sodium, Chloride, and Phosphorus, Fatty Acid Profile of endogenous fat in protein if applicable and amino acid profile of proteins being used if it is a nutritional study.

FATS AND OILS - Moisture, impurities, unsaponifiables, free fatty acids, and fatty acid profiles.

17. Proposals including feeding of animals must include complete proposed diet/diets.
18. The Fats and Proteins Research Foundation will provide funding only to those scientists at universities or research organizations who comply with the provisions of the Institutional Animal Care and Use Committee as specified by the APHIS Inspection Service, USDA in 9CFR Part 2, Subpart C, Section 2.31, presented in "Guidelines for the Care and Use of Agricultural Animals in Agricultural Research and Teaching" (Federation of Animal Science Societies, 3rd edition, 2010), and if applicable "Guide for the Care and Use of Laboratory Animals" (National Research Council - The National Academies Press, 8th edition, 2010) or "Guide to the Care and Use of Experimental Animals" (Canadian Council of Animal Care, Volume 1, 2nd edition, 1993) or their equivalency.
19. FPRF is an equal opportunity organization.
20. Funds will be paid as follows (unless other arrangements are necessary and agreed to):
 - 50% of total allocated funds at beginning of project;
 - 50% at completion of project and receipt of final report.

Note: Include the instruction: "Make check payable to...(provide payee name)"
21. The following statement is required with all proposals and must be signed by an official of the university or research organization and the project leader: "The (Department) of University or Research Organization) agrees to provide the following to the Fats and Proteins Research Foundation, Inc.:

- (a) A progress report on the research project every six months until the project is completed (using the format in appendix 1); the FPRF Research Committee will review progress towards the objective.
- (b) Within three months following completion of the research funded, a Final Project Report (using the format in appendix 2) of the results; the final report will be shared with the FPRF membership and summaries will be used in communications with stakeholders.
- (c) The grantee understands the FPRF will retain 50% of the approved funds until an acceptable Final Report has been provided to the Foundation.
- (d) Express permission should be given to the Foundation to provide the research results to the industry. FPRF will provide a summary of Final Report to supporters of the Foundation.

Failure to meet deadlines for progress reports or final reports will delay grant payments until the reports have been received.

Progress and final reports should be sent as a Microsoft Word document or Acrobat PDF document by email to Charles Starkey at cstarkey@nara.org. FPRF expects that completed work also be published in an appropriate peer-reviewed journal.

- 22. Submission of New Proposals for Continued Projects or Re-submission of a Proposal. Since the foundation is requesting other organizations to co-fund many of our projects, it is necessary for the Grantee to re-submit a new project proposal each year (except for those projects that were originally submitted as a multi-year proposal) even if the following year's work is only a slight modification of the previous year's study. Re-submissions must clearly state and provide in bold print the changes and additions from the previous submissions.
- 23. Authorized signatures:
 - (a) Project Leader
 - (b) Department Head
 - (c) University Official
 - (d) Research Organization President

Please address each item of the format completely, but briefly. Reprints of scientific or popular articles by the investigator dealing with prior research in the area of the proposal are not required. However, if such reprints are supplied they will be passed on to the reviewers.

Other Information

In recent years, FPRF has averaged approximately five at-large grants per year at a level of \$45,000 each. FPRF does not have a recommended range or limit for grants, but budget and practicality are part of the evaluation.

FPRF has funded approximately 650 projects since 1962. Reports on nearly all of them can be found on the website, fprf.org.

PROGRESS REPORT

Date: February 1, 1999

Submitted to: Fats and Proteins Research Foundation, Inc.

Email a Microsoft Word document or Acrobat PDF document to Charles Starkey
cstarkey@nara.org

Title: (i.e.) Effects of Feeding Tallow to Dairy Cows During the Dry Period on Liver Function and Subsequent Milk Production

By: (i.e.) James K. Drackley
Phone:
Email:

University / Location: (i.e.) University of Illinois at Urbana-Champaign

Project Starting Date: April 1, 1993 **Projected Completion Date:** August 31, 1995

Objectives: (i.e.)

- 1) To determine if the source of energy used (tallow or grain) to add body condition affects liver function and composition, incidence of metabolic disorders after calving, and milk production and composition after calving.
- 2) What specific answers will this project provide?
- 3) Etc.

Summary of Project Results / Progress to Date:

This is to be brief, concise statements of the progress towards the completion of the project from its initiation (Abstract).

It should include the basic conclusions to date based on the available data and observations.

This report does not need to include detailed charts or data, but these could be included as attachments. Pertinent data should be reported in the Progress Report as summary text.

This report should include an updated assessment of the impact of this project on the utilization of animal fats and proteins as the case may be. Please limit Progress Reports to two pages.

This two-page summary will serve as the basic communication process for the Research Committee and FPRF membership.

Appendix 2: Final Report Format (example)

Final Report

Final Report Submission Date: February 1, 1999

Submitted to: Fats and Proteins Research Foundation, Inc.

Email a Microsoft Word document or Acrobat PDF document to Charles Starkey at cstarkey@nara.org

Project Title: (i.e.) The Effect of Copper Level on the Fat Utilization of Weanling Swine

Principal Investigator: (i.e.)

Dr. C. Robert Dove
Coastal Plain Experimental Station
University of Georgia
P. O. Box 748
Tifton, Georgia 31793
Phone:
Email:

Co-Investigators:(i.e.)

K.D. Haydon

Project Started: June 8, 1992

Project Completed: August 18, 1993

INDUSTRY SUMMARY

(pages 2 and 3)

The Industry Summary is to be no longer than a 2-page lay-term summary that includes the sections of a brief introduction, basic objective and the summary.

- 1. The introduction – should be a brief exploration that justifies the research and provides documentation as to why the objectives were selected for this project.*
- 2. Objectives – define, consistent with the Progress reports the objectives set for completion during the conduct of the project.*
- 3. Industry summary – this should be a “layperson’s abstract” explaining without abbreviations, acronyms or citations what the findings of this research answered or did not answer concerning the objectives and how specifically the conclusions should be applied to commercial utilization or formulation of the materials used in the study. Economics of the application of the results should be addressed.*

Though some speculation is permitted and expected, the need to caution readers against over extrapolation of the results should be included where applicable.

The Industry Summary is basically a report to the Fats and Proteins Research Foundation membership of the value derived for their research investment.

Manuscript sections should then follow on page 4 and subsequent pages to include:

Scientific Abstract

Key Words

Introduction

Experimental Procedures (Materials and Methods)

Results

Discussion

Conclusions

Tables/Graphs/Illustrations/Pictures, Figures, Photographs, Proximate Analysis of Experimental Rations and Ingredients

Acknowledgements

Literature Citations

Final reports are due within three months following completion of the research project.