



FPPC

*Farm Pilot Project Coordination, Inc.
"Technologies for Nutrient Management"*

Request for Proposal Nutrient Management Technologies for Animal Feeding Operations

Farm Pilot Project Coordination, Inc. (FPPC), a not-for-profit organization, was designated by Congress (Public Law 107-76) to assist in implementing innovative treatment technologies to address the growing animal waste issues emanating from animal feeding operations (AFOs). FPPC's objective is to foster the conservation, development and wise use of land, water, and related resources, while providing AFOs with opportunities for profitable operation.

FPPC's specific mandate is to oversee the implementation and administration of a Pilot Project Program to demonstrate economically viable innovative treatment technology systems that reduce the nutrient content of waste stream from AFOs by 75 percent or greater. This Request for Proposal (RFP) seeks technologies (Pilot Projects) that will satisfy the congressional mandate. Funding for approved Pilot Projects is from funds appropriated by Congress and overseen by the Natural Resources Conservation Service (NRCS). The ability of proposers responding to the RFP to provide and commit additional resources, whether of an in-kind, financial or related nature, will be important criteria considered in awarding Pilot Projects.

RFP-FPPC-02-2007: Limited Resource Farmer, Small Farmer, and Tribal Farmer: Animal Waste Management Demonstration

FPPC issues this RFP for animal waste treatment projects, and for innovative technology systems that will result in a 75 percent or greater removal, or redistribution of nutrients in waste streams discharged from limited resource farmer, small farmer, and/or tribal farmer's animal feeding operations.

Examples of innovative technologies include but are not limited to one or more of the following:

- Solid separation equipment and/or drying systems
- Settling basins and lagoon treatment systems
- Chemical and microbial additions
- Nitrification and de-nitrification systems
- Pyrolysis and gasification systems that provide significant removal and reuse of nutrients (phosphorus, nitrogen and potassium)
- Systems that develop value for the manure solids

- Waste water treatment systems that are integrated with “best management practices” (i.e., buffer strips, wetlands and tree farming)
- Systems/technologies that result in significant reuse or savings of water; and/or systems/technologies that result in conservation of land through the reduction of nutrient concentration
- Other innovative technologies that may be determined to be appropriate

Rationale for the Projects

Animal production is an evolving industry that has grown and spread to many geographic regions within the United States. The majority of this growth is seen in increase herd size, specialized environments, and animals being raised in the confinement of buildings where temperature, humidity and other environmental factors are managed to optimize production. However, there is still a population of smaller farms that are being subjected to the same permitting and regulation.

Limited resource farmers, as described by the U.S. Department of Agriculture’s Natural Resources Conservation Service, have one or more of the following:

- Gross farm sales average not more than \$100,000 or less each of the last two years, farm and non-farm, is 50 percent or less of the non-metropolitan median income level for the state or county.
- Lack of access to capital, labor, or equipment.
- Farm or ranch size is significantly smaller than the average size.
- Social, cultural, customs or language barriers, minimal awareness of USDA programs, limited management skills, the level of formal education is below the county average or undereducated, and are less likely to take business risks and adopt new technology.¹

Whereas, large commercial farms have experienced change in animal production and manure management practices, the limited resource farmer, small farmer, and/or tribal farmer may still be operating on dated technology and knowledge. The animal manure is collected and frequently used as a fertilizer on adjacent cropland or pastureland. However, in many areas, the amount of manure far exceeds the available land area to utilize the manure in an agronomic manner. As such, it is both a valued nutrient, and an environmental challenge for producers.

Changes and current trends in the animal production industry raise many environmental concerns such as surface and groundwater quality, odor and air quality. The Federal Clean Water Act requires large animal production facilities to meet the requirements of livestock effluent limitation guidelines (ELG). In some situations, animal production operations of any size may be regulated if they are, or are likely to be, a significant environmental threat. Most states administer the Federal Clean Water Act requirements and incorporate those requirements into state permit regulations. However, regulations vary widely from state to

¹ “Meeting the Diverse Needs of Limited-Resource Producers” Published by the Sustainable Agricultural Network (SAN). www.sare.org/publications/limited-resource.htm

state and change frequently as various levels of government adjust and adapt to keep up with the rapidly changing and growing livestock production industry.

The challenge for the industry, including these farmers, is to develop manure treatment systems that will handle concentrated animal waste in an economical and environmentally friendly manner. Without alternative animal nutrient management systems, expansion of some operations will be limited while others may be forced out of business.

Project Objective:

The objective of this RFP is to solicit and demonstrate innovative animal waste treatment technologies and cost effective nutrient waste management systems on a small farm scale. FPPC will consider the funding of small scale pilot projects at a maximum of \$80,000 per project. The total cost for the system must be economically feasible for limited resource farmers as well as other small farms and ranches.

FPPC will consider proposed waste technologies and systems appropriate for nutrient reduction (75% minimum). Projects may be located on small farm and limited resource farm animal feeding operations, particularly in regions where excess nutrients are documented. FPPC encourages the leveraging of proposals with existing knowledge, previous capital investment, and available farm facilities to support the proposed technology demonstration.

Next-generation systems must supply existing test results (particularly field results) and forecast the expected changes in improved operational efficiency, maintenance and labor cost, system performance, and overall commercial viability of the proposed project phase.

Prior to project implementation, vendors with approved proposals must quantify the amount of nutrients (N, P, and K) to be removed from the waste stream, how the nutrients will be transported, and their eventual fate. An approved testing protocol will be designed by the vendor and FPPC. Where a value-added product is created, vendors must describe how the proposed value of manure solids and/or effluent will be realized.

Deadline for Submission

To be considered, submitted proposals (with 15 copies and one signed original) must be received in the FPPC Inc offices at either address below no later than 5:00 p.m. (EST), January 15th, 2008. Interested persons should send proposals to:

Tena Merckson
Farm Pilot Project Coordination, Inc.
P.O. Box 3031
Tampa, FL 33601-3031

Tena Merckson
Farm Pilot Project Coordination, Inc.
Suite 3250
101 E. Kennedy Blvd.
Tampa, FL 33602

Proposal Requirements

Each project proposal will be evaluated against the same criteria and each proposal must address the following minimum requirements:

Project Description

1. In the proposed demonstration project, provide a detailed description of the system and how the technology/process works. Include a waste stream flow diagram as well as a detailed process flow diagram.
2. If applicable, describe previous lab or bench testing of the proposed process. Discuss why the proposed innovative technology is expected to achieve similar results in an agricultural setting at farm scale. Provide supporting data or case histories to support this extrapolation.
3. Quantify the amount of effluent that will be treated and describe the waste stream in terms of number of animals and animal units.

Project Site Location

4. Provide a description of the project site showing where the technology demonstration will be implemented, including location, state, watershed, county, township, section, and range. The farm location is an important consideration and will be evaluated more favorably when sited within regions where excess nutrients are identified – (see NRCS Nitrogen and Phosphorus county maps in Attachment A). For further information on nutrient hot spots go to www.usda.gov.
5. Proposals will be evaluated based on an ability to transfer the technology to other farms/facilities, both locally and regionally, and to other animal waste applications.
6. The project is expected to comply with applicable Federal, State and local permitting, and certification requirements of the region.

Monitoring

7. Describe how the process will be monitored, and how test results will be analyzed. Measurements and data must be documented to determine system performance and nutrient reduction. A detailed monitoring plan will be required as part of the Plan of Work if the project is accepted by the FPPC for pilot demonstration.
8. The Technology Provider will be required as part of the FPPC contract to employ the services of an outside, independent third-party (i.e. university, state agency, certified testing laboratory, etc.) to develop the project monitoring plan, and document the actual sampling, data and testing for the pilot project and final report results. The purpose of this requirement is to provide objective, credible results of pilot project performance while providing assurance to regulators, the public, technologists, researchers and others in the agricultural community.

Nutrient Reduction / Environmental Impact

9. The proposed project must have a high probability of removing 75% or greater of the nutrients from the waste stream. This includes nitrogen (N), phosphorous (P) and potassium (K). The proposal should be focused on the reduction of the critical nutrients in that area. Less emphasis should be placed on nutrients that are not limiting.

The proposed project should demonstrate the removal of nutrients from the waste stream and the potential fate of the nutrients should be identified.

10. Describe the existing farm manure management system and compare it to the proposed system. Compare the nutrient reduction of the existing treatment system to the nutrient reduction of the pilot demonstration process.

11. Discuss the final disposition and fate of N, P, K nutrients. Clarify whether the nutrients are captured in a form that can be utilized commercially (value-added) or are transformed into another waste material. Identify if nutrients are moved on farm, off farm but nearby, out of the watershed, or completely out of the agricultural system.

12. Any additional environmental benefits derived from the regional use of the technology should be highlighted. Odor reduction, decreases in air emissions, and air quality improvements should be discussed if benefits from the proposed project are anticipated.

Project Plan

13. A project plan should be provided with sufficient detail and include key personnel, required construction, machinery to be purchased, expected timeline, budget and significant milestones.

- Provide a budget which includes total annual costs; a detailed analysis of the costs associated with design, permitting, and construction; and the projected cost of operation and maintenance (including an estimated O&M cost per head of livestock).
- The approved project budget will be considered a 'fixed - not to exceed' contract amount (i.e. cost overruns will be borne by the technology vendor).

14. During the pilot demonstration, the vendor will have the technology system fully operational, monitored and evaluated for a minimum of 12 months. The technology system must be fully operational typically within 12 months from the award date.

15. Provide a separate line item for the development of a comprehensive nutrient management plan (CNMP).

- FPPC will determine prior to final contract negotiation whether a CNMP will be required for the pilot project. To develop a CNMP, the technology provider, farm owner or a qualified Technical Service Provider (TSP) may be required to develop the CNMP.
- Proposers are strongly encouraged to familiarize themselves with the requirements for developing CNMPs. The vendor shall submit the qualifications of personnel preparing the CNMP or use a certified Technical Service Provider (TSP).

- Criteria for developing CNMP elements and plan approval can be obtained from the NRCS TechReg web site <http://techreg.usda.gov> or by contacting the NRCS State Office in the state where the project is located. Additional information on development of CNMPs can also be found at:
http://www.nrcs.usda.gov/programs/afo/cnmp_guide_index.html.
- Failure to complete a timely CNMP prior to project operation will result in the withholding of payments for costs incurred by the Pilot Project.

Role of Key Personnel

16. Supply written commitment that the farm owner/operator agrees with the necessary planning, design, implementation, operation and monitoring occurring on the subject farm/facility. The owner/operator must agree to provide access and be contractually bound for such purposes.

As part of the Pilot Project, the farm owner together with the Technology Provider must provide written commitment to provide necessary maintenance and management assistance during the demonstration term of the Pilot Project.

17. The Technology Provider is expected to identify a project leader who will lead, manage, and provide all necessary resources (i.e. a project team) for fully implementing the proposed pilot project at the farm site.

Intellectual Property

18. The technology provider must indicate if the vendor has patented intellectual property and indicate if the technology, or components thereof, used in the Pilot Project is of a proprietary nature.

19. A minimum of 10% cost share is required for pilot project proposals.

20. If a project is selected by the FPPC, the technology provider will be responsible for providing suitable assurance that the proposed project will be implemented (constructed) and completed within the project budget, and that sufficient resources will be available to accomplish tasks in a timely manner. This surety can be a performance bond, a line of credit, or other vehicle deemed acceptable to the FPPC. Technology providers are required to list their method of surety as part of this proposal.

21. The Technology Provider should be prepared to provide references and describe relevant experience to illustrate that the proposed project can be managed and implemented effectively within the project plan. During final selection of projects and a period of due diligence, the technology provider may be invited to overview their commercial interests, core and strengths, and explain how the proposed project and technology is an appropriate fit for their business.

22. Where feasible, the project is expected to address value-added uses for solids, manure, or by-products. For example, a marketable fish food may be produced as a result of innovative technology, which provides the farmer with a source of income, and assists the local farm co-op with an enhanced image and role.

23. The proposal should be compatible with the surrounding community interest and invite local support. Where possible, show evidence of collaboration and cooperative efforts from Federal, state or local regulatory and non-regulatory agencies, and non-governmental organizations involved in agricultural nutrient management programs and conservation practices. Provide written endorsements from principle stakeholder or groups.

Administrative Information

1. Proposal format/guidelines:

- The proposal must be completely bound by staple, three ring binder, or otherwise (please do not use paper clips, rubber bands, file folders, binder clips or envelopes). Sequentially number all pages. The size of each page must be no larger than 8 ½” by 11”. Text shall be typed and on one side of the sheet only.
- Description clarity and completeness of the proposal will be an important factor in the overall evaluation and selection of pilot projects. To clarify, the use of supplemental diagrams, sketches and photographs is encouraged.

2. Deliverables

All delivered proposals shall become the property of Farm Pilot Project Coordination, Inc.

3. Pilot Project Period

The anticipated contract period for the awarded grant is expected to be for a term between 24-36 months.

4. Proposal Timetable

Listed below are the important events for this Request for Proposal.

Date/Time	Activity
November 5 th , 2007	RFP released
November 20 th , 2007	Deadline for all written inquiries regarding the RFP
December 3 rd , 2007	FPPC written response to any RFP questions will be available and posted on the FPPC website.
January 15 th , 2008	Proposals in response to this RFP must be received by FPPC and will be opened at the FPPC Office.
Jan./15/2008 – Feb./15/2008	Evaluation of proposals in progress.
Feb./15/2008 – Mar./31/2008	Recommendations to Board of Directors for funding
April 15 th , 2008	Written notification to technology providers.

5. Inquiries, Written Questions and Responses

No negotiations, decisions, or actions shall be initiated or executed by the proposer as a result of any verbal discussions with any purchaser or FPPC employee.

FPPC will respond to verbal and written questions throughout the RFP process up to the due date of the proposals.

FPPC personnel will not discuss proposals during the proposal evaluation period. FPPC will not accept any revisions to any proposal after the proposal due date.

6. Acceptance of Proposal

The FPPC reserves the right to reject any and all proposals or waive minor irregularities when to do so would be in the best interest of FPPC. Minor irregularities are those, which will not have a significant adverse effect on overall competition, cost or performance. The FPPC reserves the right to reject the proposal of any proposer who the FPPC determines is not in a position to perform within the parameters, and time frames of the Pilot Project Program.

7. Number of Copies Required

One (1) signed original and fifteen (15) duplicate copies of the proposal and all attachments must be completed and submitted to the FPPC Office in accordance with the Proposal Deadline stated herein. The original must contain signatures of a duly authorized principal representing the technology provider, property owner or contractor who is authorized to bind the proposer and property owner.

8. Proposal Submittals

Proposals must be submitted in a sealed envelope or package to the FPPC Project Office, and received by January 15th, 2008 no later than 5:00 P.M. In addition to the address, the face of the envelope/package shall be clearly postmarked to reflect the date and time proposal was mailed.

NOTE:

Proposals received by the FPPC after the proposal deadline will be rejected as untimely and will not be opened. A late proposal notice will be sent to the proposing firm. Unclaimed late proposals will be destroyed after forty-five (45) days. Proposals listed on the FPPC posted Award Notice are the only proposals received in accordance with the FPPC proposal opening time and date.

9. Optional Oral Presentation

At the discretion of the FPPC, proposers may be requested to give oral presentations of the Pilot Project proposals.

10. Cost of Preparation

The FPPC is not liable for any costs incurred by a proposer in response to this Request for Proposal including an optional oral presentation.

11. Independent Capacity of Proposer

The Technology Provider, its officers, agents and employees, in performance of the Pilot Project, shall act in the capacity of an independent contractor and not as officer, employee or agent of FPPC.

12. Cancellation of Contract

Any contract resulting from this Request for Proposal may be canceled by either party, (Contractor or FPPC) in whole or in part, by providing thirty (30) days written notice. Contractors' failure to follow specifications and requirements set forth herein may result in immediate cancellation of the contract by FPPC and initiation of default proceedings against the Contractor. In addition, the contract may be canceled by FPPC for refusal by the Contractor to allow public access to all documents, papers, letters or other material made or received by the Contractor in conjunction with the contract, unless the records are exempt from publication under Federal or state law.

13. Employment of Unauthorized Aliens

The FPPC shall consider the employment by any Proposer of unauthorized aliens a violation of Section 274A (e) of the Immigration and Nationality Act. If a Proposer knowingly employs unauthorized aliens, such violation shall be cause for unilateral cancellation of this contract.

14. Proposal Evaluation and Award

An evaluation committee appointed by the FPPC will evaluate all responses. Proposals will first be reviewed to verify that they conform to all mandatory requirements. Proposals that do not conform to mandatory requirements or contain material deviations from the specifications will be rejected and not considered further. The evaluation committee will recommend a list of proposers to be considered by FPPC for contract negotiation and, if satisfactorily concluded, contract award.

15. FPPC Contact Information

Lauren Seigel, Project Manager
Phone: (800) 829-8212; (813) 222-8200
Facsimile: (813) 222-3298
E-mail: info@fppcinc.org
Webpage: www.fppcinc.org

Attachment A



