

**STATE OF MARYLAND**

**Request for Information (RFI)**

**RFI Issue Date:** October 2, 2013

**RFI Issuing Office:** Maryland Department of Agriculture  
Office of Resource Conservation

**RFI Contact Person:** Ms. Louise Lawrence

Maryland Department of Agriculture  
Resource Conservation  
50 Harry S. Truman Pkwy Annapolis,  
Maryland 21401  
Phone: (410) 841-5873

**Response Due Date:** October 16, 2013

**Purpose:**

The Maryland Department of Agriculture (MDA) is issuing this RFI to gather information from vendors, businesses, entrepreneurs or individuals offering technologies, equipment, infrastructure or services that can be used by individual or groups of farmers to improve the management and utilization of manure and agricultural waste resources.

The State's nutrient management regulations govern the use of manure and organic nutrient sources as a crop nutrient prescribing amount, timing, and placement. Adherence to requirements may be improved by changing the nutrient content, changing the form to improve handling and management or developing new uses such as energy generation or new products that add value to the farm business model.

MDA has \$2.5 million available to provide support to demonstrate these types of innovative technologies in state fiscal year 2014 and plans to release a Request for Proposals (RFP) later this year to solicit projects.

Vendors, businesses, or individuals are invited to respond to this RFI by completing the attached Questionnaire. Completed questionnaires should be mailed or faxed by close of business on Wednesday October 16, 2013, to:

Ms. Louise Lawrence  
Maryland Department of Agriculture  
Resource Conservation  
50 Harry S. Truman Pkwy Annapolis,  
Maryland 21401  
Email: [louise.lawrence@maryland.gov](mailto:louise.lawrence@maryland.gov)  
Fax: 410/841-5734

The questionnaire can also be filled in electronically and is posted on the MDA website:  
[www.mda.maryland.gov](http://www.mda.maryland.gov)

**Forms completed electronically will need to be printed and faxed or sent through regular mail.**

**In responding to this RFI, please do not provide a proposal, specific information about pricing, or additional information not requested in the Questionnaire.**

#### **DISCLAIMER**

**This RFI is issued solely for informational and planning purposes and does not constitute a solicitation. Responses to this notice are not offers and cannot be accepted by the State of Maryland to form a binding contract. Respondents are solely responsible for all expenses associated with responding to this RFI.**

**Any respondent shall avoid responses that provide information it considers confidential, proprietary commercial information or trade secrets. Responses to this RFI will not be returned.**

Please complete the following questionnaire as indicated. Most questions require yes/no responses. For those questions requiring additional information, additional space has been provided.

**A. Background:**

Name of technology: \_\_\_\_\_

Brief description: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**B. Technical Feasibility:**

1. The technology is commercially available now? Yes  No 
  - a. If no, estimate how soon it expected to become commercially available.  
 Less than a year       More than a year
  
2. The technology has been previously deployed or demonstrated on a farm. Yes  No 

If yes:

  - a. How many have been deployed? \_\_\_\_\_
  
  - b. Where has it been deployed (state/country) \_\_\_\_\_
  
  - c. At what scale was it operated and what is its capacity? (How many animals were providing inputs or what was the quantity of manure processed per year?) \_\_\_\_\_  
\_\_\_\_\_
  
  - d. What type of manure has it treated? \_\_\_\_\_
  
  - e. What quantity of manure did it treat? How much manure is needed to maintain year-round operation? \_\_\_\_\_
  
3. What manure(s) have you had experience using this or other technologies for:
  - a.  Livestock (dairy/horse/beef) manure:  
 Handling  
 Treatment
  - b.  Poultry litter  
 Handling  
 Treatment
  - c.  None
  
4. The technology requires permitting. Yes  No 
  - a. If yes, what type of permit applies to technology?  
 Air emissions  
 Point source water discharge  
 Other (please identify) \_\_\_\_\_
  
  - b. Does documentation from certified testing companies exist that would help to determine if the technology will meet permit thresholds? Yes  No

**C. Economic Feasibility**

5. Do you have experience with installed and working systems to estimate the project's payback period? Yes No
- a. If yes, is the payback period within a timeframe considered reasonable for the industry and for comparable technologies? Yes No
- b. If the payback period has been estimated or determined, please provide this information (identify the scale of project for which payback period is estimated using metrics such as quantity of manure managed or processed): \_\_\_\_\_
- 
6. Please estimate total cost to implement this technology. (List all *funding sources, including in hand and needed.*)
- Less than \$100,000
- \$100,000 to \$250,000
- \$250,000 to \$400,000
- \$400,000 to \$750,000
- More than \$750,000
- Please explain as necessary: \_\_\_\_\_
- 

**D. Environmental Benefits or Outcomes**

7. Are the environmental benefits of the technology quantifiable? Specifically, is performance data verifying environmental benefits (i.e.: air emissions, nutrient recovery, co-product characteristics) available? Yes  No  If yes, please describe: \_\_\_\_\_
- 
- 
8. The technology will change the amount of land area on which manure or poultry litter can be used as a fertilizer. Yes No
- If yes,
- a. Will land for application of manure nutrients be required to increase? Yes  No
- b. Will land for application of manure nutrients be required to decrease? Yes No
- c. Unknown
9. The project reduces nitrogen and/or phosphorus movement to surface waters from farms in Maryland where animals are produced. Yes No
- If yes, please describe: \_\_\_\_\_
- 
- 
10. The technology changes the form of manure/waste or otherwise facilitates transport of nutrients. Yes No
- If yes, please describe: \_\_\_\_\_
- 
-

11. What is the ultimate fate of the nutrients in manure or waste processed using this technology? (*check all that apply*)

- Remains in by-product of process (ex. Effluent or wastewater)
- Reduces nutrient content
- Reduces volume of materials & nutrient content unchanged
- Reduces volume of materials & nutrients ratios improved for crop utilization
- Nutrients are in new form
- Other, please describe: \_\_\_\_\_

### **E. Value Added Projects**

12. The technology provides value-added co-product/s. Yes No  
If yes, please describe. \_\_\_\_\_

\_\_\_\_\_

13. There is an established market for the co-product/s. Yes No  
If yes, please describe. \_\_\_\_\_

\_\_\_\_\_

14. There is a strong potential for a market to be established for the co-product/s.  
Yes No If yes, please describe. \_\_\_\_\_

\_\_\_\_\_

15. The technology produces saleable product/s. Yes No  
(*check any that apply*)

- a. Heat is a co-product.
- b. Electricity is a co-product.
- c. Co-products are suitable as a fertilizer.
- d. Residual co-product will require market development
- e. Residual co-product will require disposal.

16. Does the technology produce energy from animal manure? Yes No

17. The technology is expected to generate environmental credits (ex. carbon, renewable energy, or nutrient). Yes No

### **F. Technology Deployment & Management**

18. The technology vendor has knowledge of nitrogen and phosphorus nutrient cycles.  
Yes No

19. The technology vendor has experience working with animal production systems.  
Yes No If yes, was this experience in Maryland? Yes No  
If not, where? \_\_\_\_\_

20. The technology vendor has experience integrating various components of the project in an agricultural setting? Yes  No
21. The technology vendor will provide coordination to secure partners with experience to install the project? Yes  No
22. The technology is best operated by a trained professional? Yes  No
23. The technology can be operated by a farmer? Yes  No
24. The technology is suited to:
- a. Individual farm operations? Yes  No
- b. Groups of farms or cooperatives of farms? Yes  No
25. Can you estimate a maintenance life for this technology? Yes  No
- a. If yes, please indicate maintenance life: \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

Thank you for your response.