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## **Inventorying Pennsylvania Farm Conservation Practices in the Chesapeake Bay Watershed**

### **Summary of Project**

Pennsylvania farmers have done much to improve water quality. Yet many of the conservation practices that farmers have implemented over the years are not accounted for in tracking the progress made toward meeting priority water quality goals, including cleaning up the Chesapeake Bay. This is especially true where farmers have implemented these practices on their own initiative and by using their own dollars. To date, no effort has been undertaken to comprehensively inventory these practices in the Chesapeake Bay watershed.

The purpose of this project is to invite Pennsylvania farmers in the Chesapeake Bay watershed to complete an inventory of conservation practices on their farms through self-reporting of practices. The inventory will be administered by the Penn State Survey Research Center (SRC). A team of researchers from the Penn State College of Agricultural Sciences will analyze inventory responses and cumulative results will be provided to the PA Department of Environmental Protection and the PA Department of Agriculture to document conservation practices implemented by Pennsylvania farmers.

### **Methodology**

This project will be undertaken by a team of investigators from the College of Agricultural Sciences and Penn State Extension. The inventory will be administered by the Penn State Survey Research Center (SRC). Penn State Extension will provide to the SRC a mailing list of approximately 25,000 farmers in the Chesapeake Bay watershed.

The self-reporting inventory instrument was developed collaboratively by Penn State University, Pennsylvania Farm Bureau, PennAg Industries, Professional Dairy Managers of Pennsylvania, the Pennsylvania Department of Agriculture, the Pennsylvania State Conservation Commission, Pennsylvania Association of Conservation Districts, and the Pennsylvania Department of Environmental Protection. It requires farmers to report information about their farm operations and conservation practices implemented on their farms. The SRC will format the instrument into an 8-page inventory using Teleform scanning software. The SRC will also format the inventory into its web software, providing respondents with an online option.

The SRC will print, stuff and mail the inventory with cover letter and business reply envelopes to approximately 25,000 respondents. A postcard reminder will be mailed to respondents approximately 7-10 days later. A second inventory will be mailed to non-respondents approximately 7-14 days after the reminder postcard.

The SRC will accept all returns via business reply envelopes and website and process all returns. Returns will be scanned and verified by SRC and a dataset will be cleaned and provided to the principal investigator. SRC will also produce a short methodology report detailing the procedures used and the response rates.

In its administration of the inventory, the SRC will assign a unique ID number to each respondent. The SRC will retain as confidential all data which links the ID numbers to names and addresses of respondents. Physical data (such as returns) will be secured in a locked cabinet while computerized data will be stored on secured firewalled servers with at least 128-bit SSL security. Names or other identifying information will not be shared with the investigators or any other entity.

Upon conclusion of the inventory 10 percent of respondents will be randomly selected by the SRC for farm visits by Penn State Extension personnel to assess the accuracy of the overall inventory. A list of names and addresses of farmers selected for farm visits will be shared with Extension personnel. Extension personnel will contact each farmer selected to ensure their willingness to participate in the follow-up farm visit.

Inventory results from the farms selected for farm visits will not be shared with the Extension personnel conducting the visit. Extension personnel will complete an inventory report while on the farm visit. The report form will include information about all of the conservation practices inventoried in the inventory. The report form will have the unique ID number associated with the particular respondent, but will not include farmer names, addresses or any other locational identifier. Extension personnel will not include any such information on the forms, thus ensuring the confidentiality and anonymous nature of the farm visit data recorded. To further protect confidentiality, the list of names and addresses of farmers selected for the farm visits will be returned to the SRC and will be kept secure with all other identifying information.

The farm visit report will also be administered by the SRC. The SRC will format the report form using Teleform scanning software. All completed farm visit inventory reports will be provided to the SRC for scanning and verification. A cleaned dataset will then be provided to the principal investigator.

The principal investigator and co-investigators will analyze the datasets received from the SRC and produce a report providing cumulative data by county of the amount of conservation practices implemented on farms. This report will be provided to the Pennsylvania Department of Environmental Protection and Pennsylvania Department of Agriculture for use in reporting cumulative conservation practice implementation by agriculture in the Chesapeake Bay watershed.

Once the study is complete and names, addresses and other identifiers are no longer needed for elements of the project, all identifying information will be destroyed to ensure confidentiality of participants.

# **Pennsylvania Farm Conservation Practices Inventory**

## **Instructions**

Thank you for agreeing to participate in this inventory of conservation practices on Pennsylvania farms. Please have the individual with the best knowledge of the conservation practices used in your operations complete the inventory.

The inventory will be used to determine the amount of conservation practice adoption on Pennsylvania farms. Cumulative results will be provided to the Pennsylvania Department of Environmental Protection to document the practices that Pennsylvania farmers are doing to conserve soil and water, and protect water quality. Ten percent of the participants in this inventory will be randomly selected for farm visits by Penn State Extension to assess the accuracy of the overall inventory.

**Please be assured that your responses will be kept completely confidential and your results will never be associated with your name or locational information.** The results reported to the Department of Environmental Protection will be provided in summary form and will not include any names or locations of inventory participants. Names and addresses will be removed from all inventory and farm visit results to prevent identification of participants.

Please answer each question to the best of your knowledge. Where the question asks you to fill in a circle, please fill the circle completely. Where the question asks you to write an answer, please print legibly.

The first part of this inventory asks basic questions about your farming operations. The second part of the inventory asks whether you are practicing certain conservation practices in your farming operations, and then asks some additional questions about each practice. Some of the practices listed may not be applicable to your operation. If you do not utilize a practice, answer "No" and continue on to the next question.

Please submit your completed inventory to the Penn State Survey Research Center by April 30, 2016.

## About Your Farming Operations

1. Please provide your name and the physical address of your farming operation.

First Name

--	--	--	--	--	--	--	--	--	--

I

--

Last Name

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Number & Street Address

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

City

--	--	--	--	--	--	--	--	--	--

State

--	--

Zip Code

--	--	--	--	--	--

Municipality (township, borough, etc.)

--	--	--	--	--	--	--	--	--	--

County

--	--	--	--	--	--	--	--	--	--

Watershed, if known: ☐ Delaware ☐ Erie ☐ Genessee ☐ Ohio ☐ Potomac ☐ Susquehanna

2. How many acres is your farming operation? For purposes of answering this question and filling out the remainder of the survey, your farming operation includes all land which you manage for agricultural activities, including owned ground and rented ground.

--	--	--	--	--	--

Number of acres

3. For calendar year 2015, please indicate what crops you grew, how many acres of each, whether they were grown on owned or rented ground, and whether any of the acres grown were a double crop.

Crop	Acres on Owned Ground					Acres on Rented Ground					Acres Grown as a Double Crop				
Corn Grain															
Corn Silage															
Soybeans															
Wheat															
Rye															
Barley															
Alfalfa															
Hay															
Other (please specify):															

**4. Do you raise animals as part of your farming operation?**

☐ No → Please proceed to Question 5.

☐ Yes → **4a. For calendar year 2015, please indicate what types of animals you had and the total annual head of each.**

Animal	Number	Animal	Number	Animal	Number	Animal	Number
Broilers		Nursery Pigs		Veal Calves		Beef Cattle	
Layers		Finisher Pigs		Dairy Heifers (12 mos. & younger)		Horses	
Turkeys		Sows		Dairy Heifers (older than 12 mos.)		Other _____	
Ducks		Boars		Cows (Milking and dry)		Other _____	

## Your Conservation Practices

**5. Do you have a nutrient management plan or manure management plan for your farming operations?**

☐ No → Please proceed to Question 6.

☐ Yes → **5a. What type of plan do you have?**

☐ Act 38 Nutrient Management Plan

☐ NRCS 590 Nutrient Management Plan or Comprehensive Nutrient Management Plan

☐ Manure Management Plan

**5b. When was it written or last updated?**   /     Month/Year

**5c. Were any county, state or federal government funds used to develop your plan?** ☐ No ☐ Yes

**5d. From whom or where did you get information to assist you in preparing the plan? (select all that apply)**

☐ Conservation District one-on-one assistance

☐ Conservation District workshop

☐ USDA NRCS

☐ Penn State Extension

☐ Private sector/nutrient management planner

☐ Certified crop advisor

☐ None

☐ Other (please specify): \_\_\_\_\_

**5e. Indicate how many acres are covered by your nutrient management plan:**

Land Type	Acres
Row Crops (corn, beans, small grains)	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Pasture	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Hay	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

**6. Do you perform nitrogen tests such as the Pre-side dress Nitrate Test (PSNT), Corn Stalk Nitrate Test (CSNT), Illinois Soil Nitrogen Test (ISNT), Fall Soil Nitrate Test (FSNT), or Variable N rate application?**

☐ No → Please proceed to Question 7.

☐ Yes → **6a. Do you use the test results to change nitrogen application rates and/or timing?**

☐ No

☐ Yes → **6b. On how many acres of cropland do you use these nitrogen test methods to adjust recommendations?**      Acres

7. Is any manure produced from your farming operation transported out of the county in which your farming operations are located?

☐ No → Please proceed to Question 8.

☐ Yes, and I know to which county or counties my manure is transported

☐ Yes, but I don't know the county or counties to which my manure is transported; a hauler or broker handles this for me.

7a. If you know to which county or counties your manure is transported, please list the top three counties and/or states that receive your manure. Indicate the type of manure transported, the county(ies) and state(s) to which your manure is transported, the approximate annual amount that is transported to each location, and whether you worked with a manure hauler or broker to transport your manure.

County and State to which manure is transported	Manure Type	Approximate annual amount transported	Unit	Did you work with a hauler or broker?
1.	<input type="radio"/> Dairy <input type="radio"/> Swine <input type="radio"/> Beef <input type="radio"/> Poultry		<input type="radio"/> Tons <input type="radio"/> Gallons	<input type="radio"/> No <input type="radio"/> Yes
2.	<input type="radio"/> Dairy <input type="radio"/> Swine <input type="radio"/> Beef <input type="radio"/> Poultry		<input type="radio"/> Tons <input type="radio"/> Gallons	<input type="radio"/> No <input type="radio"/> Yes
3.	<input type="radio"/> Dairy <input type="radio"/> Swine <input type="radio"/> Beef <input type="radio"/> Poultry		<input type="radio"/> Tons <input type="radio"/> Gallons	<input type="radio"/> No <input type="radio"/> Yes

8. Do you have any animal waste storage systems (manure storages) for your farming operations?

☐ No → Please proceed to Question 9.

☐ Yes → 8a. For each manure storage you have, indicate the type of manure it stores, the date it was constructed, the months of storage it provides, whether any county, state or federal government funds were used to construct it, and whether runoff from the storage is being controlled.

	Manure Type	Month/Year Constructed	# of Months of Storage Provided	Were county, state or federal funds used to construct your storage?	Is runoff controlled from your storage system?
1	<input type="radio"/> Dairy <input type="radio"/> Swine <input type="radio"/> Beef <input type="radio"/> Poultry	<input type="text"/> / <input type="text"/>	<input type="text"/>	<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> No <input type="radio"/> Yes
2	<input type="radio"/> Dairy <input type="radio"/> Swine <input type="radio"/> Beef <input type="radio"/> Poultry	<input type="text"/> / <input type="text"/>	<input type="text"/>	<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> No <input type="radio"/> Yes
3	<input type="radio"/> Dairy <input type="radio"/> Swine <input type="radio"/> Beef <input type="radio"/> Poultry	<input type="text"/> / <input type="text"/>	<input type="text"/>	<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> No <input type="radio"/> Yes
4	<input type="radio"/> Dairy <input type="radio"/> Swine <input type="radio"/> Beef <input type="radio"/> Poultry	<input type="text"/> / <input type="text"/>	<input type="text"/>	<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> No <input type="radio"/> Yes
5	<input type="radio"/> Dairy <input type="radio"/> Swine <input type="radio"/> Beef <input type="radio"/> Poultry	<input type="text"/> / <input type="text"/>	<input type="text"/>	<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> No <input type="radio"/> Yes

**9. Do you have any barnyards?**

☐ No → Please proceed to Question 10.

☐ Yes → **9a. Do you have any barnyard runoff controls on these barnyards? (This includes practices such as roof runoff control, diversion of clean water from entering the barnyard, and control of runoff from barnyard areas.)** ☐ No ☐ Please proceed to Question 10.

☐ Yes → **9b. Indicate what kind of runoff control practices you have, when they were built, and whether any county, state or federal government funds were used to construct them.**

Runoff Control Practice	Do you have this practice?	Month/Year Constructed	Were county, state or federal funds used to construct the practice?
Roof runoff structures (gutters, downspouts, outlets)	<input type="radio"/> No <input type="radio"/> Yes	<input type="text"/> / <input type="text"/>	<input type="radio"/> No <input type="radio"/> Yes
Concrete barnyards	<input type="radio"/> No <input type="radio"/> Yes	<input type="text"/> / <input type="text"/>	<input type="radio"/> No <input type="radio"/> Yes
Curbs	<input type="radio"/> No <input type="radio"/> Yes	<input type="text"/> / <input type="text"/>	<input type="radio"/> No <input type="radio"/> Yes
Collection system and/or pumps	<input type="radio"/> No <input type="radio"/> Yes	<input type="text"/> / <input type="text"/>	<input type="radio"/> No <input type="radio"/> Yes
Barnyard runoff filter strip	<input type="radio"/> No <input type="radio"/> Yes	<input type="text"/> / <input type="text"/>	<input type="radio"/> No <input type="radio"/> Yes

**10. Do you have any Agricultural Erosion & Sedimentation Control Plans (E&S Plans) or Conservation Plans for your farming operations?**

☐ No → Please proceed to Question 11.

☐ Yes → **10a. For each plan you have, indicate the type of plan, when it was written or last updated, whether any federal government funds were used to develop your plan, and the acres of each land type covered by your plan:**

Plan Type		Month/Year Written or Updated	Were Federal funds used to develop your plan?	Type and Number of Acres Covered by Plan			
				Land Type	# of Acres	Land Type	# of Acres
1	<input type="radio"/> E&S Plan	<input type="text"/> / <input type="text"/>	<input type="radio"/> No <input type="radio"/> Yes	Row Crops	<input type="text"/>	Hay	<input type="text"/>
	<input type="radio"/> NRCS Conservation Plan			Pasture	<input type="text"/>	Barnyard	<input type="text"/>
2	<input type="radio"/> E&S Plan	<input type="text"/> / <input type="text"/>	<input type="radio"/> No <input type="radio"/> Yes	Row Crops	<input type="text"/>	Hay	<input type="text"/>
	<input type="radio"/> NRCS Conservation Plan			Pasture	<input type="text"/>	Barnyard	<input type="text"/>
3	<input type="radio"/> E&S Plan	<input type="text"/> / <input type="text"/>	<input type="radio"/> No <input type="radio"/> Yes	Row Crops	<input type="text"/>	Hay	<input type="text"/>
	<input type="radio"/> NRCS Conservation Plan			Pasture	<input type="text"/>	Barnyard	<input type="text"/>
4	<input type="radio"/> E&S Plan	<input type="text"/> / <input type="text"/>	<input type="radio"/> No <input type="radio"/> Yes	Row Crops	<input type="text"/>	Hay	<input type="text"/>
	<input type="radio"/> NRCS Conservation Plan			Pasture	<input type="text"/>	Barnyard	<input type="text"/>
5	<input type="radio"/> E&S Plan	<input type="text"/> / <input type="text"/>	<input type="radio"/> No <input type="radio"/> Yes	Row Crops	<input type="text"/>	Hay	<input type="text"/>
	<input type="radio"/> NRCS Conservation Plan			Pasture	<input type="text"/>	Barnyard	<input type="text"/>

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**11. Did you practice no till or minimum till in calendar year 2015?**

☐ No → Please proceed to Question 12.

☐ Yes → 11a. Indicate how many acres meet the following amounts of residue left in the field at the time of planting:

Amount of Residue	Acres
60% or greater	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
30% or greater, but less than 60%	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

11b. How many of your acres have been in continuous no till for the last five years?  Acres

**12. Did you plant cover crops in calendar year 2015?**

☐ No → Please proceed to Question 13.

☐ Yes → 12a. Fill out the chart below to indicate what species you planted, when they were planted, number of acres for each, whether they received a nutrient application, and whether you harvested or plan to harvest them:

Rye	<input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> No <input type="radio"/> Yes
Wheat	<input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> No <input type="radio"/> Yes
Barley	<input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> No <input type="radio"/> Yes
Oats	<input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> No <input type="radio"/> Yes
Annual Rye grass	<input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> No <input type="radio"/> Yes
Annual Legumes	<input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> No <input type="radio"/> Yes
Triticale	<input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> No <input type="radio"/> Yes
Mixture (specify):	<input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> No <input type="radio"/> Yes
Other (specify):	<input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> No <input type="radio"/> Yes

**13. Is there any stream bank fencing on land that is part of your farming operation?**

☐ No → Please proceed to Question 14.

☐ Yes → 13a. How many total linear feet of stream bank fencing do you have? (If fencing is on both sides of the stream, include each side as part of this total.)  feet

13b. What is the average distance from the stream to the fence?  feet

13c. Were any county, state or federal government funds used to construct this fencing?

☐ No → Please proceed to Question 14.

☐ Yes → 13d. How many linear feet of stream bank fencing was funded using county, state or federal government funds?

feet

14. Do you have any streamside riparian buffers on land that is part of your farming operation?

☐ No → Please proceed to Question 15.

☐ Yes → 14a. How many acres is the buffer?  acres

14b. What is the average width of the buffer?  feet

14c. Are trees and/or shrubs growing in the buffer? ☐ No ☐ Yes

14d. Were any county, state or federal government funds used to construct this buffer?

☐ No → Please proceed to Question 15.

☐ Yes → 14e. How many acres of buffer was funded using county, state or federal government funds?  acres

15. Excluding any riparian buffers identified in your answer to Question 14, have you retired any cropland from your farming operation to permanent vegetation such as perennial grasses, trees or shrubs?

☐ No → Please proceed to Question 16.

☐ Yes → 15a. Indicate what year you retired your cropland, how many acres have been retired, and whether trees and/or shrubs are growing in the retired acreage.

Year	Acres	Are trees and/or shrubs growing?
<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="radio"/> No <input type="radio"/> Yes
<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="radio"/> No <input type="radio"/> Yes
<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="radio"/> No <input type="radio"/> Yes

15b. Were any county, state or federal government funds used to retire this acreage?

☐ No → Please proceed to Question 16.

☐ Yes → 15c. How many acres of retired cropland was funded using county, state or federal government funds?  acres

16. Please feel free to share any comments, thoughts or questions you may have.

\*\*\*\*\*END OF SURVEY\*\*\*\*\*

Please place survey in postage paid envelope and return to  
Penn State Survey Research Center  
105 The 330 Building  
University Park, PA 16802

Thank You!

### Qualifications of Field Evaluators

County Extension Agents are full-time Penn State Employees typically trained in Agronomy, Horticulture, Nutrient Management, or Livestock systems with a Master's Degree or higher. These individuals are responsible for interpreting and disseminating the latest research findings in the field of practice, planning and delivering educational programs like presentations, workshops, conferences and individual contact based on their community's opportunities or needs, managing volunteers to help in delivering high-quality programs and initiatives. These field evaluators have already fostered relationships with local producers and conservation groups, and understand their local community's agricultural needs.

### Training

Field Evaluators will be required to complete one of two all-day trainings to prepare for the verification visits. The trainers will be composed of qualified and certified staff, including those with technical assistance and engineering design expertise.

July 18 <sup>th</sup>	Southeast Agricultural Research and Extension Center in Landisville, PA
July 28 <sup>th</sup>	Russel E. Larson Agricultural Research Center in Pine Grove Mills, PA

### Training Agenda:

<b>Introduction/Opening</b>	
<b>Chesapeake Bay Reporting Protocol</b>	<i>Review the overall need for on-site initial verification and reporting procedures for the Chesapeake Bay Program.</i>
<b>Biosecurity</b>	<i>Review of biosecurity procedures and requirements.</i>
<b>Inventory and Farm Visit Report</b>	<i>Review and discuss the farm conservation practice inventory and how to complete the farm visit report.</i>
<b>Act 38, Manure Management, Conservation and Ag E&amp;S Plans</b>	<i>Overview of the plans, how to distinguish between the different types of plans and the operations that are required to have these plans. Administrative completeness reviews of the plans will also be discussed.</i>
<b>Break</b>	
<b>Resource Improvement (RI) Practice Verification Protocol</b>	<i>In-depth review of RI practices and the checklists as they pertain to the Penn State inventory. How to complete the checklists will also be discussed. Training will be provided by qualified presenters with backgrounds in technical assistance and engineering.</i>
<b>Lunch</b>	
<b>Resource Improvement (RI) Practice Verification Protocol - continued</b>	
<b>Group Exercise</b>	<i>The training participants will be split into groups for hands-on activity, working through the farm visit report, administrative completeness review, and RI checklists.</i>
<b>Conclusion and Wrap-up</b>	

# Pennsylvania Farm Conservation Practices Inventory Farm Visit Report

Unique ID #: \_\_\_\_\_

Start Time: \_\_\_\_\_ End Time: \_\_\_\_\_ Date: \_\_\_\_\_

**1. Was the operator able to produce an Act 38 Nutrient Management Plan or NCRS 590 Plan?**

☐ No → Please skip question 2 and proceed to question 3.

☐ Yes → **1a. When was it written or last updated?** \_\_\_\_\_ (Month/Year)

**Was the plan written by a certified writer and or planner?** \_\_\_\_\_ (Name)

**1b. Were any county, state or federal government funds used to develop the plan?**

☐ County funds

☐ State funds

☐ Federal funds

**1c. Indicate how many acres are covered by the nutrient management plan:**

Land Type	Acres
Row Crops (corn, beans, small grains)	
Pasture	
Hay	

**2. Does the operator perform nitrogen tests such as the Pre-side dress Nitrate Test (PSNT), Corn Stalk Nitrate Test (CSNT), Illinois Soil Nitrogen Test (ISNT), Fall Soil Nitrate Test (FSNT), or Variable N rate application?**

☐ No → Proceed to question 4.

☐ Yes → **2a. Does the operator use the test results to change nitrogen application rates and/or timing?**

☐ No

☐ Yes → **2b. On how many acres of cropland does the operator use these nitrogen test methods to adjust N rate recommendations?** \_\_\_\_\_ acres

☐ Yes → **2c. On how many acres of cropland does the operator use these nitrogen test methods to adjust N placement recommendations?** \_\_\_\_\_ acres

**Proceed to question 4.**

**3. Was the operator able to produce a Manure Management Plan?**

☐ No → Please proceed to question 4.

☐ Yes → **3a. When was it written or last updated?** \_\_\_\_\_ (Month/Year)

**Was the plan written by a certified writer and or planner?** \_\_\_\_\_ (Name)

**3b. From whom or where did the operator get information to assist in preparing the plan? (Select all that apply)**

- ☐ Conservation District one-on-one assistance
- ☐ Conservation District workshop
- ☐ Penn State Extension
- ☐ Private sector/nutrient management planner
- ☐ Certified crop advisor
- ☐ None
- ☐ Other \_\_\_\_\_

**3c. Indicate how many acres are covered by the operator's Manure Management Plan:**

Land Type	Acres
Row Crops (corn, beans, small grains)	
Pasture	
Hay	

**4. Is any of the manure produced from the operator's farming operations transported to a different farm operator out of the county and or State in 2015?**

☐ No → Please proceed to question 5.

☐ Yes → **4a. Indicate the type of manure transported, the county(ies) and state(s) to which the manure is transported, and the approximate annual amount that is transported to each location:**

Manure Type	County and state to which manure is transported	Approximate annual amount transported	Unit
<input type="radio"/> Dairy <input type="radio"/> Swine <input type="radio"/> Beef <input type="radio"/> Poultry <input type="radio"/> Equine <input type="radio"/> Other			<input type="radio"/> Tons <input type="radio"/> Gallons
<input type="radio"/> Dairy <input type="radio"/> Swine <input type="radio"/> Beef <input type="radio"/> Poultry <input type="radio"/> Equine <input type="radio"/> Other			<input type="radio"/> Tons <input type="radio"/> Gallons
<input type="radio"/> Dairy <input type="radio"/> Swine <input type="radio"/> Beef <input type="radio"/> Poultry <input type="radio"/> Equine <input type="radio"/> Other			<input type="radio"/> Tons <input type="radio"/> Gallons

**4b. Was a manure hauler or broker used?** \_\_\_\_\_ (Name)

**5. Does the operator have any animal waste storage systems (manure storages)?**

☐ No → Please proceed to question 6.

☐ Yes → **5a. For each manure storage, indicate the type of manure it stores, the date it was constructed, the months of storage it provides, whether any county, state or federal government funds were used to construct it, and whether runoff from the storage is being controlled.**

	Manure Type	Date Constructed (Month/Year)	Number of Animals	Were county funds used to construct the storage?	Were state funds used to construct the storage?	Were federal funds used to construct the storage?	Is runoff controlled from the storage system?	Stackable or Liquid?
1	<input type="radio"/> Dairy <input type="radio"/> Swine <input type="radio"/> Beef <input type="radio"/> Poultry <input type="radio"/> Equine <input type="radio"/> Other			<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> S <input type="radio"/> L
2	<input type="radio"/> Dairy <input type="radio"/> Swine <input type="radio"/> Beef <input type="radio"/> Poultry <input type="radio"/> Equine <input type="radio"/> Other			<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> S <input type="radio"/> L
3	<input type="radio"/> Dairy <input type="radio"/> Swine <input type="radio"/> Beef <input type="radio"/> Poultry <input type="radio"/> Equine <input type="radio"/> Other			<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> S <input type="radio"/> L
4	<input type="radio"/> Dairy <input type="radio"/> Swine <input type="radio"/> Beef <input type="radio"/> Poultry <input type="radio"/> Equine <input type="radio"/> Other			<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> S <input type="radio"/> L
5	<input type="radio"/> Dairy <input type="radio"/> Swine <input type="radio"/> Beef <input type="radio"/> Poultry <input type="radio"/> Equine <input type="radio"/> Other			<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> S <input type="radio"/> L

**5b. Storage Capacity \_\_\_\_\_ (Tons or Gallons)**

**5c. What were the source of funds used, if known? \_\_\_\_\_**

**Example.** Growing Greener, EQIP, Chesapeake Bay, PennVest, REAP, Section 319, NFWF, etc.

**5d. Was there a certified engineer/company who designed/built the storage system(s)? \_\_\_\_\_ (name(s))**

**6. Does the operator have any barnyards?**

☐ No → Please proceed to question 7.

☐ Yes → **6a. Have any barnyard runoff controls been implemented? (This includes practices such as roof runoff control, diversion of clean water from entering the barnyard, and control of runoff from barnyard areas.)**

☐ No → Please proceed to question 7.

☐ Yes → **6b. Indicate what kind of runoff control practices have been implemented, the date they were built, and whether any county, state or federal government funds were used to construct them.**

**6c. Was there a certified engineer/company who built the practice(s)? \_\_\_\_\_ (name(s))**

Runoff Control Practice	Is this practice implemented?	Date Constructed (Month/ Year)	Were county funds used to construct the practice?	Were state funds used to construct the practice?	Were federal funds used to construct the practice?
Roof runoff structures (gutters, downspouts, outlets)	<input type="radio"/> No <input type="radio"/> Yes		<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> No <input type="radio"/> Yes
Concrete barnyards	<input type="radio"/> No <input type="radio"/> Yes		<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> No <input type="radio"/> Yes

Curbs	<input type="radio"/> No <input type="radio"/> Yes		<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> No <input type="radio"/> Yes
Collection system and/or pumps	<input type="radio"/> No <input type="radio"/> Yes		<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> No <input type="radio"/> Yes
Barnyard runoff filter strip	<input type="radio"/> No <input type="radio"/> Yes		<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> No <input type="radio"/> Yes
Exclusion fencing for barnyards	<input type="radio"/> No <input type="radio"/> Yes		<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> No <input type="radio"/> Yes	<input type="radio"/> No <input type="radio"/> Yes

**What were the source of funds used, if known? \_\_\_\_\_**

**Example.** Growing Greener, EQIP, Chesapeake Bay, PennVest, REAP, Section 319, NFWF, etc.

**7. Was the operator able to produce an Agricultural Erosion & Sedimentation Control Plan (E&S Plan) or a Conservation Plan?**

☐ No → **Please proceed to question 8.**

☐ Yes → **7a. When was it written or last updated? \_\_\_\_\_ (Month/Year)**

**7b. Was the plan written by a qualified individual? \_\_\_\_\_ (Name)**

**7c. From whom or where did you get information to assist you in preparing the plan? (select all that apply)**

- ☐ Conservation District one-on-one assistance
- ☐ Conservation District workshop
- ☐ USDA NRCS
- ☐ Penn State Extension
- ☐ Private sector/certified planner
- ☐ Certified crop advisor
- ☐ None
- ☐ Other (please specify): \_\_\_\_\_

**7d. Indicate how many acres are covered by the E&S Plan or Conservation Plan:**

Land Type	Acres
Row Crops (corn, beans, small grains)	
Pasture	
Hay	
Animal Heavy Use Area (Barnyard) - Typically will be in the tenths of an acre	

**8. Does any of the operator's cropland show evidence that no till or minimum till was practiced in calendar year 2015?**

☐ No → **Please proceed to question 9.**

☐ Yes → **8a. Indicate how many acres meet the following amounts of residue left in the field at the time of planting:**

Amount of Residue	Acres
60% or greater	
30% or greater but less than 60%	



**8b. How many of the operator's acres have been in continuous no till for the last five years?**

\_\_\_\_\_ acres

**8c. Were any county, state or federal government funds used to implement the practice?**

☐ County funds      ☐ State funds      ☐ Federal funds

What were the source of funds used, if known? \_\_\_\_\_

**Example.** Growing Greener, EQIP, Chesapeake Bay, PennVest, REAP, Section 319, NFWF, etc.

**9. Does any of the operator's cropland show evidence of cover crops planted in calendar year 2015?**

☐ No → **Please proceed to question 10.**

☐ Yes → **9a. Indicate what species were planted, the date they were planted, how many acres of each, whether they received a nutrient application, and whether the operator harvested them:**

Species	Date of Planting (Month)	Acres Planted	Nutrient Application?	Harvesting?
Rye			<input type="radio"/> No <input type="radio"/> Fall <input type="radio"/> Yes <input type="radio"/> Spring	<input type="radio"/> No <input type="radio"/> Yes
Wheat			<input type="radio"/> No <input type="radio"/> Fall <input type="radio"/> Yes <input type="radio"/> Spring	<input type="radio"/> No <input type="radio"/> Yes
Barley			<input type="radio"/> No <input type="radio"/> Fall <input type="radio"/> Yes <input type="radio"/> Spring	<input type="radio"/> No <input type="radio"/> Yes
Oats			<input type="radio"/> No <input type="radio"/> Fall <input type="radio"/> Yes <input type="radio"/> Spring	<input type="radio"/> No <input type="radio"/> Yes
Annual Ryegrass			<input type="radio"/> No <input type="radio"/> Fall <input type="radio"/> Yes <input type="radio"/> Spring	<input type="radio"/> No <input type="radio"/> Yes
Annual Legumes			<input type="radio"/> No <input type="radio"/> Fall <input type="radio"/> Yes <input type="radio"/> Spring	<input type="radio"/> No <input type="radio"/> Yes
Triticale			<input type="radio"/> No <input type="radio"/> Fall <input type="radio"/> Yes <input type="radio"/> Spring	<input type="radio"/> No <input type="radio"/> Yes
Mixture (specify: _____ _____ _____)			<input type="radio"/> No <input type="radio"/> Fall <input type="radio"/> Yes <input type="radio"/> Spring	<input type="radio"/> No <input type="radio"/> Yes
Other (specify: _____ _____)			<input type="radio"/> No <input type="radio"/> Fall <input type="radio"/> Yes <input type="radio"/> Spring	<input type="radio"/> No <input type="radio"/> Yes

**9b. Were any county, state or federal government funds used to implement the practice?**

☐ County funds      ☐ State funds      ☐ Federal funds

What were the source of funds used, if known? \_\_\_\_\_

**Example.** Growing Greener, EQIP, Chesapeake Bay, PennVest, REAP, Section 319, NFWF, etc.

**10. Is there any stream bank fencing on land that is part of the operator's farming operation?**

☐ No → **Please proceed to question 11.**

☐ Yes → **10a. How many linear feet is the stream bank fencing? \_\_\_\_\_ feet**

**10b. What is the average distance from the top of stream bank to the fence? \_\_\_\_\_**

**10c. Were any county, state or federal government funds used to construct this fencing?**

☐ County funds      ☐ State funds      ☐ Federal funds

What were the source of funds used, if known? \_\_\_\_\_

**Example.** Growing Greener, EQIP, Chesapeake Bay, PennVest, REAP, Section 319, NFWF, etc.

**10d. What month/year(s) was the stream bank fencing installed on the operation? \_\_\_\_\_**

**10e. Temporary or permanent fence? \_\_\_\_\_**

- 10f. Was the area between the fence and the stream grazed after installation? \_\_\_\_\_
- 10g. How often was the area grazed in the year (Continuous, once, twice, etc.)? \_\_\_\_\_
- 10h. Is the fenced riparian buffer predominantly in grass, or in trees and/or shrubs?
- ☐ Grass
  - ☐ Trees and/or shrubs

**11. Are any streamside riparian buffers on non-pastured land that is part of the operator's farming operation?**

- ☐ No → Please proceed to question 12.
- ☐ Yes →
- 11a. How many linear feet is the buffer? \_\_\_\_\_ feet
- 11b. What is the average width of the buffer from top of stream bank? \_\_\_\_\_ feet
- 11c. What month/year(s) was the riparian buffer(s) installed on the operation?
- 11d. Is the riparian buffer predominantly in grass, or in trees and/or shrubs?
- ☐ No
  - ☐ Yes

**11e. Were any county, state or federal government funds used to construct this buffer?**

- ☐ County funds      ☐ State funds      ☐ Federal funds

What were the source of funds used, if known? \_\_\_\_\_

**Example.** Growing Greener, EQIP, Chesapeake Bay, PennVest, REAP, Section 319, NFWF, etc.

**12. Excluding any riparian buffers identified in the answer to question 11, has the operator retired any cropland from his farming operation to permanent vegetation such as perennial grasses, trees or shrubs?**

- ☐ No
- ☐ Yes → 12a. Indicate what year the operator retired the cropland, how many acres have been retired, and whether trees and/or shrubs are growing in the retired acres.

Year	Acres	Are trees and/or shrubs growing in the retired acres?
		<input type="radio"/> Yes  <input type="radio"/> No
		<input type="radio"/> Yes  <input type="radio"/> No
		<input type="radio"/> Yes  <input type="radio"/> No

**12b. Were any county, state or federal government funds used to retire this acreage?**

- ☐ County funds      ☐ State funds      ☐ Federal funds

What were the source of funds used, if known? \_\_\_\_\_

**Example.** Growing Greener, EQIP, Chesapeake Bay, PennVest, REAP, Section 319, NFWF, etc.