Tips and Tools for Project Verification: A planning guide for applicants and grantees

This guide contains tips and real-world examples of verification of Northeast SARE outcome-funded Research and Education and Professional Development projects.

The appendix contains sample tools used by one or more Research and Education or Professional Development projects.

No single project has an exemplary tool for each tip, but we hope the range of examples will help spark ideas for your project.

J. McAllister, July 2015
To verify the performance target, select indicators that are related, measurable, and realistic.

Indicators are the pieces of data you will measure directly or ask beneficiaries about so you can learn the extent to which they made the changes described in the performance target. Indicators will be project-specific and dependent on the actions and benefits described in the performance target.

For Research and Education projects, the indicators must relate directly to the targeted changes in farmer action or behavior and to the social, economic, and environmental benefits that are expected to result from the behavior changes. Data about the number of farmers who change and extent of change these farmers make is also necessary, so select indicators of scale such as acres, animals, yield, inputs, or comparable measures affected by the change.

For Professional Development projects, the desired change in action and behavior is always related to agricultural service providers using new knowledge and skills to teach farmers about recommended beneficial practices. In addition to tracking the number of service providers who take action, select indicators of the extent of service provider action like the number of training events, the number of farmers taught, and the amount of production managed by the farmers—these provide an indication of the service providers’ scale of influence.

Some Professional Development projects also gather data from their agricultural service provider beneficiaries about what farmers did as a result of their educational outreach, but this level of data is not required. Usually the ability to get farm-level data is the result of a project design that has agricultural service providers working closely with their farmer clients during the project.

When should you select performance indicators?

The indicators should be selected when the proposal is in development. It’s important to make sure you have established a performance target that you can verify, and that you have a clear plan to obtain the data that will confirm your accomplishments.

See samples.
Write down the questions you will ask and the data you will collect to verify the performance target.

The questions asked and data collected to verify performance target accomplishments must be directly related to the indicators you selected on page 2.

Northeast SARE recognizes that not all interesting and useful results and outcomes from projects are directly related to the performance target, so while this tip offers guidance on performance target-specific verification questions, we advise including an open-ended question about the project’s influence on beneficiaries in verification tools to learn about unexpected results.

When should you write performance target verification questions?

Sample verification questions or drafts of data recording sheets for beneficiaries are required as part of the verification plan in a full proposal. Writing these questions and designing these tools at the time of proposal serves as a good check on how realistic and feasible the performance target is. If you have difficulty writing questions for beneficiaries to find out if they made the changes you describe in the performance target, then that may be a sign you should revisit the performance target and the selected indicators for verifying performance.

Review your data collection needs with representative beneficiaries to ensure they are capable and willing to provide the data to you, either by responding to questions or tracking indicators. It is typical that the sample verification tools you provide with the proposal application undergo revision and refinement with beneficiary input.

When should you ask beneficiaries performance target verification questions?

Beneficiaries need time to enact changes in their behavior after learning through a project’s activities, and time to determine what the benefit of the change has been for them. Ask questions to verify the performance target long enough after formal project activities to allow time for beneficiaries to act.

The specific time interval to follow-up performance target verification may vary, but asking questions three to six months after educational programs is typical. If you wait too long, you may miss the opportunity to provide assistance or encouragement that beneficiaries may need.

Additional follow-ups later on are also needed to obtain the results and benefits from changes enacted. For example, if farmers adopt a new best management practice, results from their production season may be needed to determine the results and benefits of the practice for them.

See samples.
Inform beneficiaries about the project content, the performance target, and the planned milestones and verification activities.

Convey the content, process, expected benefits, and participant expectations for the project. Keep in mind that prospective participants are likely tuned to the radio station WiiFM (what’s in it for me), so initial recruitment and descriptive information must sell the project. Tell prospective applicants what the overall aim of the project is (the performance target), what you plan to provide, how you will help them achieve that goal (the approach and milestones), and how you will measure success (verification questions and methods).

There is no need to be shy about conveying your expectations for participants – if you are offering something of value that they want, then assume they will be receptive. Determining your program’s enrollment by using an application with a clear explanation of the information described above can be an effective strategy for generating commitment and enthusiasm for your project.

When should you inform beneficiaries?

Inform beneficiaries when you advertise the project and recruit participants, at initial project events, and anytime during the project when a refresher is warranted, such as when new beneficiaries join or you enter a new phase of the project.

Inform beneficiaries about the performance target indicator data you will measure or collect from them at the beginning of project and remind them throughout as needed.

See samples.
Collect baseline data about participants’ demographics, knowledge and skills, and attitudes, and note potential obstacles to change.

Collecting baseline data:

- helps you determine the specific content for outreach materials and educational sessions, as well as the depth and difficulty level of content needed to meet participants’ needs
- allows you to uncover challenges and obstacles to change among participants that you will address
- provides the benchmark from which to measure and report participants’ increases in knowledge and skill as a result of your efforts
- allows participants to tap into their prior experiences so they are more engaged and receptive to learning with you

When should you collect baseline data?

You will collect some baseline data at the time of proposal via needs assessment, and, depending on the amount of information collected, this data may meet many of your needs for planning and curriculum and overall approach. However, it may not be adequate for assessing an increase in knowledge and skills as a result of your project.

Registration and application forms are an excellent way to get baseline data and beneficiary contact and demographic information. Failure to establish and maintain a good beneficiary contact list is far too often cited as the reason for poor project performance target verification efforts.

Other ways to obtain baseline data at project events include pre- and post-event questionnaires and retrospective questions, where participants rate their abilities and level of understanding before and after the event.

See samples.
Ask questions to verify the extent of knowledge and skills participants learn through project milestone activities.

Verifying participant learning at milestone events such as workshops, field days, and webinars will:

- provide feedback that helps you refine and revise your efforts
- help you identify new or remaining needs for knowledge and skill development
- generate reportable data about the effectiveness of your efforts

Assessments should focus on the key knowledge, skills, attitudes, and intentions beneficiaries need to develop to reach the performance target.

**When should you verify learning through milestone activities?**

It may not be necessary to verify learning at every encounter with beneficiaries, but you should assess the learning that occurs as a result of the project’s major educational efforts and learning that is most essential for beneficiaries accomplishing the performance target.

See samples.
Appendix

To verify the performance target, select indicators that are related, measurable and realistic.

Examples

<table>
<thead>
<tr>
<th>Research and education performance targets</th>
<th>Indicators</th>
</tr>
</thead>
</table>
| **Example from preproposal applicant guide** | -Number of farmers who implement nutrient mgt. plans  
  Ten dairy farmers implement nutrient management plans on a total of 1,000 acres, reducing annual fertilizer applications of N by an average of 50 lbs. per acre and saving $30 per acre in fertilizer costs.  
  -Number of acres under plans  
  -N fertilizer application rates before plans/N fertilizer application rates after plans  
  -Calculated cost savings from difference in N application rates |
| **Example from preproposal applicant guide** | -Number of farmers who develop an employee training program  
  Twenty farms with a total of 100 full-time employees develop an employee training program, policy manual, and productivity incentives, reducing employee absentee days by an average of 50 per year per farm compared to the previous three years.  
  -Number of full time employees they have  
  -Farmer-reported data about employee absenteeism before training program and employee absenteeism data after training program |
| **Example from preproposal applicant guide** | -Number of farmers who develop and implement a direct marketing plan  
  Twenty-five farmers with average direct-market annual sales of $150,000 per farm conduct market analyses and then develop and implement marketing plans that lead to an avg. increase in annual sales of $15,000 per farm.  
  -Farmer-reported data about annual sales before the plan and annual sales after implementing the plan |
| **Adapted from LNE14-335** | -Number of vegetable growers who integrate a recommended soil borne disease management practice and the practices used (brassica cover crops, reduced tillage or other)  
  Forty vegetable growers across three regions of NY will integrate multiple soil borne disease management practices that may include biofumigation with brassica cover crops and reduced tillage on at least 5 acres per farm, recovering $1000 - $4000 per acre otherwise spent and/or lost on diseases like Phytophthora blight.  
  -Number of acres practices adopted on  
  -Farmer-reported reduction in disease control costs as a result of practices minus cost of adopting practice (to obtain net benefit)  
  -Farmer reported reduction in yield losses minus cost of adopting practice (to obtain net benefit) |
| **Adapted from LNE13-327** | -Number of farmers who adopt FAMACHA and other non-chemical internal parasite control methods and the methods adopted  
  75 farmers surveyed will report deworming less and reducing their chemical dewormer costs by as much as $215 in a 100-doe or ewe flock, citing adoption of FAMACHA and other non-chemical internal parasite control methods, including low dose copper wire particles (COWP), and they will reduce deaths from internal parasites from as many as 18 animals per year to 5 animals per year, increasing income by $2,205 in a herd or flock of 100 mature females.  
  -Number of animals methods used on  
  -Farmer-reported reductions in number of dewormings and amount of chemical dewormers used  
  -Calculated cost reductions from reduced dewormings and deworming chemical use  
  -Farmer-reported reduction in animal deaths/year as a result of new methods adopted  
  -Farmer-reported and/or calculated increase in income due to animal death reductions |
### Adapted from LNE-326

On a total of 850,000 tapped trees, 450 maple producers adopt a recommended, more beneficial practice to combat sap yield losses from microbial contamination, resulting in an increase in annual net profits of $1 to $3 per tap.

<table>
<thead>
<tr>
<th>Professional development performance targets</th>
<th>Indicators</th>
</tr>
</thead>
</table>
| **From ENE13-127** | -Number of maple producers who adopt a recommended practice and the practice adopted  
-Number of tapped trees they adopt the practice with  
-Producer reported sap yield loss before adopting practice and after adopting practice  
-Increase in revenue from reduced sap yield loss minus cost to adopt practice (to obtain net profits per tap) |
| 20 agricultural service providers work in teams to deliver tractor safety, use, maintenance and farm mechanization education to 108 farmers and farm workers; 12 service providers work individually with 40 farmers on farm mechanization plans; 2 collaborating organizations incorporate tractor education curriculum into ongoing adult educ. program. | -Number of service providers working in teams and number of teams who deliver education to farmers  
The educational services they deliver  
-Number of farmers they deliver education to  
-Number of service providers who work individually with farmers to create plans  
-Number of farmers they work with  
-Number and names of organizations who incorporate tractor education into their ongoing programs |
| **From ENE13-128** | -Number of a ASPs who conduct energy-related education programs, and the programs they deliver  
-Number of hours they spent conducting energy-related education before project and number of hours spent after  
-Number of ASPs who provide energy-related services, and the services they deliver  
-Number of farmers they provide services to  
-Number of farmers who make energy-related changes  
-Calculated reductions in kW demand resulting from farmer changes |
| 60 agricultural service providers (ASPs) triple the aggregate hours spent conducting energy-related educational programming in the Northeast from their pre-workshop levels. 60 ASPs will provide energy-related services to at least 120 regional farmers with support of regional network. At least 60 farm operators will make changes (50% adoption rate) that produce 500 kW of demand reduction (using generally accepted engineering calculations). | -Number of service providers who provide education programs and services to farmers  
The programs and service they deliver  
-Number of farmers they provide programs and services to  
-Acreage these farmers manage  
-Number of farmers who adopt integrated weed control and forage practices, and the practices they adopt  
The acres they adopt practices on  
-On-farm benefits measured, reported or calculated as a result of new practices (extended grazing season, herbicide and purchased feed reductions, improvements in animal performance) |
| **From ENE14-130** | -Number of educators who conduct educational programming after co-training with growers  
The programs they deliver  
-Number of farmers they reach through these programs  
-Number of educators who create IPM plans with growers  
-Number who share plan with other growers and number of growers they share it with  
-Number of growers who report increasing use of IPM in their vegetable greenhouses |
| 20 agricultural service providers in New England who gain skills in weed and forage identification and biology, and integrated weed management techniques will provide educational programs and services to 200 experienced and beginning farmers who manage an average of 120 acres; 100 farmers will adopt integrated weed control and forage management practices that extend the grazing season, decrease herbicide usage, reduce purchased feed inputs, and improve animal performance on 100 acres each (10,000 acres total). | -Number of education educators who conduct greenhouse vegetable IPM to provide grower support; 10 will conduct educational programming for 150 growers; 8 will create an IPM plan with a grower then demonstrate it for 160 growers. Thirty growers will document an increase in IPM in their vegetable greenhouses. |
| **From ENE14-133** | -Number of extension educators who conduct greenhouse vegetable IPM to provide grower support; 10 will conduct educational programming for 150 growers; 8 will create an IPM plan with a grower then demonstrate it for 160 growers. Thirty growers will document an increase in IPM in their vegetable greenhouses. |

20 extension educators will co-train with growers in greenhouse vegetable IPM to provide grower support; 10 will conduct educational programming for 150 growers; 8 will create an IPM plan with a grower then demonstrate it for 160 growers. Thirty growers will document an increase in IPM in their vegetable greenhouses.
Write down the questions you will ask or the data you will collect to verify the performance target.

Example 1

**Adapted from LNE14-336** Best management practices for the control of blister worm on oyster farms  
**Project Leader:** Paul Rawson, University of Maine

**Performance Target:** Twenty Northeastern oyster farms with annual aggregate sales of about $10 million will each implement a comprehensive polychaete pest management plan. This will reduce pest prevalence and improve crop quality compared to prior years, avoiding an estimated $4 million aggregate loss in annual sales.

Questions:
1) What type of culture system do you employ? For example do you culture oysters in cages on the surface or in bags? If you use bags, please state the style and mesh size of bags you use.

2) What quantity of oysters do you produce? You may respond in terms of weight, volume or gate value.

3) Prior to this project, had you taken measures to control *existing* infestations of blister worm?  
   YES/NO
   If yes, briefly describe these measures.

4) Prior to this project, had you taken measures to prevent *new* infestations of blister worm?  
   YES/NO
   If yes, briefly describe these measures.

5) Below are best management practices recommended during this project’s workshops, meetings and site visits. Please circle the best answer(s) for each recommendation.

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>I was doing this within the last 2 years before this project</th>
<th>I began doing this after learning through this project</th>
<th>I plan to do this within the next 6 months</th>
<th>I have no plans to do this</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conduct plankton monitoring to determine blister worm larval abundance</td>
<td>DOING BEFORE</td>
<td>STARTED DOING</td>
<td>PLAN TO DO</td>
<td>NO PLANS</td>
</tr>
<tr>
<td>Periodically air dry oysters</td>
<td>DOING BEFORE</td>
<td>STARTED DOING</td>
<td>PLAN TO DO</td>
<td>NO PLANS</td>
</tr>
</tbody>
</table>
Pressure wash oysters in surface cages

<table>
<thead>
<tr>
<th>DOING BEFORE</th>
<th>STARTED DOING</th>
<th>PLAN TO DO</th>
<th>NO PLANS</th>
</tr>
</thead>
</table>

6) Did you adopt any additional practices covered in our workshop, meeting presentations or site visit for preventing and managing blister worm?

YES/NO

If yes, please describe what you are doing.

7) Please describe any other ways you and your farm benefited from this project.

Please answer the questions below if you adopted any blister worm management practices recommended by this project.

8) On a scale of 1 to 5 (with 1 being no blister worm and 5 being heavily infested oysters), rate the severity of blister worm infestations experienced on your farm BEFORE your adoption of management practices recommended by this project and AFTER adoption of recommended practices. (circle a number BEFORE and a number AFTER)

<table>
<thead>
<tr>
<th>Severity of blister worm infestation before adopting recommended management practices</th>
<th>Severity of blister worm infestation after adopting recommended management practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

9) What is the gate value per year of your oysters since your adoption of recommended blister worm control measures? (an estimate is acceptable)

10) What was the gate value per year of your oysters before you adopted recommended blister worm control practices? (an estimate is acceptable)

11) How much has it cost you per year to implement the new recommended blister worm control practices? (an estimate is acceptable)

12) Are you experiencing challenges with use of the best management practices that you would like help from this project team to address?
Example 2

Adapted from SNE13-04 Professional development in native pollinator conservation

Project Leader: Sonia Schloemann, University of Massachusetts, MA SARE State Coordinator

Performance target:
15 Agricultural service providers will support 125 producers who seek to implement pollinator conservation practices on their farms through direct training or by delivering relevant, timely resources through traditional (meetings, publications, fact sheets) and novel (webinars, social networks) channels. 6 Extension educators will deliver in depth educational programming to 75 producers about the benefits of native pollinator conservation, practices that promote native pollinator conservation and how to access assistance in implementing these practices.

2013 Native Pollinator Follow-up Survey Introduction

Please help us know a little about who you are.

1. Which of the following categories best describes you?
   - Ag service Provider/Educator
   - Farmer/Grower/Producer
   - Student
   - Other (please specify)

2. Did you attend any workshops conducted by this project about Native Pollinator Conservation in 2013?
   - Yes
   - No

   If yes, which workshop(s)? (optional)
   - Bellertown, MA, April, 2013
   - Sturbridge, MA, September, 2013
   - Amherst, MA, November, 2013

   The questions on this page are for agricultural service providers or educators who attended one or more native pollinator workshops. Skip to question 8 if you are a farmer who attended a workshop.

3. Did you provide information about native pollinator conservation to farmers in any of your programming following the training(s) you attended?
   - Yes
   - No

   If no, would you like further training?

4. If you answered ‘Yes’ to question 3, in what ways did farmers receive this information from you? (check all that apply):
   - Workshop
   - Class

11
☐ Informal in-person contact
☐ Newsletter
☐ Online content
☐ Article/Factsheet
☐ Other (please specify)

5. If you answered ‘Yes’ to question 3, please check what information you provided to farmers from the list below (check all that apply).
☐ how to look for native pollinators (formal survey or casual observation)
☐ how to look for existing forage and nesting habitats for native pollinators
☐ how to build/buy and set out nesting structures for native pollinators
☐ how to plant and maintain new forage habitat for native pollinators
☐ Other (please specify)

6. If you answered ‘Yes’ to question 3, how many individual farmers did you inform or train in some aspect of native pollinator conservation? (enter your best count or estimate)

7. How many acres do these farmers manage? (enter your best reported data or estimate)

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2013 native pollinator follow-up survey questions for farmers

8. Did you use information or skills you learned in the class/workshop you attended on your farm?
   ☐ Yes
   ☐ No

9. If you answered yes to question 7, how did you use the new information you learned?
   ☐ by looking for native pollinators (formal survey or casual observation)
   ☐ by looking for existing forage and nesting habitats for native pollinators
   ☐ by setting out nesting structures for native pollinators (home made or purchased)
   ☐ by planting and maintaining new forage habitat for native pollinators
   ☐ Other (please specify)

10. If you set out nesting structures, planted and/or maintained new forage habitat for native pollinators, please tell us how many structures and how many acres of habitat.

11. Are you interested in participating in any future workshops on Native Pollinator Conservation?
   ☐ Yes
   ☐ No
Example 3

The sample questions on the following pages were developed by Dr. Nancy Ellen Kiernan, former Evaluation Specialist for Penn State Extension, for a 2010 workshop with NESARE state program coordinators. There are example questions and answer categories to assess behavior change as a result of an educational program.

**FOLLOW UP QUESTIONS TO VERIFY PERFORMANCE TARGET**

<table>
<thead>
<tr>
<th>Performance Target: BEHAVIOR before - after</th>
</tr>
</thead>
<tbody>
<tr>
<td>In the last 3 years, how often did you do each of the following? (circle the answer)</td>
</tr>
<tr>
<td>Plant a cover crop after corn silage</td>
</tr>
<tr>
<td>Collect soil samples for the Cornell Soil Health Index</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Performance Target: BEHAVIOR before - after</th>
</tr>
</thead>
<tbody>
<tr>
<td>Since the Cover Crop education program, how often did you do each of the following? (circle the answer)</td>
</tr>
<tr>
<td>Plant a cover crop after corn silage</td>
</tr>
<tr>
<td>Collect soil samples for the Cornell Soil Health Index</td>
</tr>
</tbody>
</table>

Listed below are some recommendation made at the Cover Crop education program. Please circle the best answers (s) for each recommendation.

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>I was doing this before the SARE program</th>
<th>I started this since the program</th>
<th>I plan to do this within 6 months</th>
<th>No plans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collected soil samples for the Cornell Soil Health Index</td>
<td>BEFORE</td>
<td>STARTED</td>
<td>PLAN</td>
<td>NO PLAN</td>
</tr>
<tr>
<td>Plant cover crops on at least 40 acres of silage corn</td>
<td>BEFORE</td>
<td>STARTED</td>
<td>PLAN</td>
<td>NO PLAN</td>
</tr>
<tr>
<td>Used a roller crimper to kill cover crops</td>
<td>BEFORE</td>
<td>STARTED</td>
<td>PLAN</td>
<td>NO PLAN</td>
</tr>
<tr>
<td>Used rye as a cover crop</td>
<td>BEFORE</td>
<td>STARTED</td>
<td>PLAN</td>
<td>NO PLAN</td>
</tr>
<tr>
<td>Used wheat at a cover crop</td>
<td>BEFORE</td>
<td>STARTED</td>
<td>PLAN</td>
<td>NO PLAN</td>
</tr>
<tr>
<td>Used oats as a cover crop</td>
<td>BEFORE</td>
<td>STARTED</td>
<td>PLAN</td>
<td>NO PLAN</td>
</tr>
<tr>
<td>Used hairy vetch as a cover crop</td>
<td>BEFORE</td>
<td>STARTED</td>
<td>PLAN</td>
<td>NO PLAN</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Performance Target: other type of BEHAVIOR before - after</th>
</tr>
</thead>
<tbody>
<tr>
<td>Since the event, to what extent have you been able to do each of the following? (circle all that apply)</td>
</tr>
<tr>
<td>Write a nutrient management plan</td>
</tr>
<tr>
<td>Write a mission statement for farm operation</td>
</tr>
<tr>
<td>Set SMART goals</td>
</tr>
</tbody>
</table>
MILESTONE: BEHAVIOR

Listed below are the cover crops discussed in the program. For each one, indicate the number of NEW acres on which you planted the cover crop on corn silage since the program.

Used wheat as a cover crop  ____________ ACRES

Used rye as a cover crop  ____________ ACRES

Used oats as a cover crop  ____________ ACRES

Used hairy vetch as a cover crop  ____________ ACRES

BARRIERS TO BEHAVIOR CHANGE

What problems have you faced in trying to use cover crops to prevent soil erosion since the Cover Crop education program began?

Many farmers may not have had an opportunity to use cover crops since the program. If you are one of these, please indicate why. (circle all that apply)

1 NOT REALLY INTERESTED IN DOING ANYTHING
2 PROGRAM DID NOT MOTIVATE ME TO GET STARTED
3 HAVE NOT HAD ENOUGH TIME TO GET STARTED
4 HAVE NOT HAD THE EXTRA MONEY TO PURCHASE THE SUPPLIES NEEDED TO DO THE JOB
5 FOUND THE RECOMMENDATIONS TOO CONFUSING TO ATTEMPT
6 OTHER REASON

OTHER SOURCES OF ASSISTANCE / INFLUENCE

In addition to SARE staff, listed below are seven other possible sources of assistance. How helpful were each of them to you in the past 5 years? (circle answers)

<table>
<thead>
<tr>
<th>Source</th>
<th>NOT HELPFUL</th>
<th>MODERATELY HELPFUL</th>
<th>VERY HELPFUL</th>
<th>DIDN’T USE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conservation district</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(office, meeting, personnel)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consultant</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fertilizer dealer</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extension</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Inform beneficiaries about the project content and goals, the performance target, the planned milestones and verification activities.

Example 1

**ENE12-123 Transferring Farms and Improving Access to Farmland: A Training Program for Northeast Agricultural Service Providers**

**Project leader:** David Haight, American Farmland Trust

**Recruitment press release and application form**

**Farmland Advisors:**

*A Training Program about Farmland Access and Farm Transfers*

The transfer of farms to a new generation is one of the biggest challenges facing agriculture in the Northeast. If you want to be an effective resource in helping farmers and farmland owners as they seek access to land and navigate the complexity of farm transfers, the new *Farmland Advisors* training program may be for you!

American Farmland Trust and Land For Good are offering this exciting two-year training program beginning in 2013. The *Farmland Advisors* program will offer up to 80 participants from New York and New England the opportunity to join a network of agricultural and conservation professionals to learn about:

- Farm transfer and succession planning
- Financial, tax and legal issues in farm transfers
- Land conservation as a farm transfer strategy
- Farm linking and matching
- Farmland leasing and other tenure options
- Farmland restoration
- Farmland affordability options

Thanks to a grant from the Northeast SARE Professional Development Program, there is no tuition cost to participate. However, participants are expected to cover personal expenses to attend a regional training conference in 2013.

To be eligible, participants must be a Cooperative Extension educator, land trust staff, agricultural service provider or other professional working with farmers and farmland owners. *Farmland Advisors* will be selected via a competitive application and will be expected to complete the 2 year training program curriculum and participate in the following:

- Surveys gauging training needs and impacts of participation
- Up to 3 webinars (based on knowledge level) in the winter of 2013
- A regional conference in the fall of 2013
- Up to 3 conference calls among participants in the winter of 2014
- Assessments to track information sharing with farmers and landowners

**Applications for participation in the Farmland Advisors training program are due by October 31st.** For an application go to: [http://www.farmland.org/programs/states/ma/new-england.asp](http://www.farmland.org/programs/states/ma/new-england.asp)

For more information, please contact Diane Held at dheald@farmland.org or (716) 652-0100.
Application for
Farmland Advisors: A Training Program about Farmland Access and Farm Transfers
Due by October 31, 2012

Name: _____________________________________________
Organization: _______________________________________
Position: ___________________________________________
Address: ___________________________________________
Phone: _____________________________________________
Email: _____________________________________________

In 75 words or less, explain your interest in Farmland Advisors: A Training Program about Farmland Access and Farm Transfers. Please include how this training will apply to your work.

I understand that this application does not guarantee my acceptance into this training program. If I am accepted, I commit to an approximate 2 year training program (from October 2012 through May 2014) with the expectation that I will do all of the following:

• complete self evaluation surveys to gauge my knowledge about farmland access issues and farm transfers,
• participate in up to 3 training webinars in the winter of 2013,
• attend a regional conference in the fall of 2013,
• participate in up to 3 peer-to-peer teleconferences in the winter of 2014,
• share farm access and farmland transfer information learned with farmers and landowners, and
• complete assessments to track information sharing with farmers and landowners.

Signature: _______________________________________

Supervisor's Signature: ______________________________

Return this application by October 31, 2012 by fax (518) 581-0079 or mail to:
Diane Held, American Farmland Trust, 21 S. Grove Street, East Aurora, NY 14052

Contact Diane with questions at dheld@farmland.org or (716) 652-0100.

American Farmland Trust and Land For Good are seeking geographic and agricultural sector diversity from throughout the six New England States and New York. Space is limited.

This project is supported by the Northeast Sustainable Agriculture Research and Education (SARE) program. SARE is a program of the National Institute of Food and Agriculture, U.S. Department of Agriculture.
Example 2

**ENE14-130** Professional development in weed and forage identification and management  
**Project leader:** Sidney Bosworth, University of Vermont

**Email announcement of training opportunity – sent through several list serves.**  
**Forage & Weed ID and Management Professional Development Training Project**

A specially designed professional development project (PDP) in forage and weed identification and management is planned for agriculture service providers in New England over the next two years (2014-2016).

This project is open to personnel working in New England in Extension, USDA agencies, State agriculture agencies, and non-government organizations who are working with dairy and livestock farmers.

This NESARE-funded project will include two field training sessions, a series of 60-minute webinars offered monthly from November through March, and the development of resources and tools to use with farmers. It is estimated that participant time commitment for the training and self-study will take about 40 hours per year.

Travel expenses to field sessions and project materials will be covered by the project. The only cost to participants will be time, thought and energy related to their involvement.

By the end of this project, participants will be better equipped to advise farmers on their forage or weed related issues. Participants are expected to actively take part and provide regular feedback regarding their related work with farmers and growers over the life of the project.

An application to participate in this project is required and can be accessed from the project website, [http://pss.uvm.edu/pdpforage/](http://pss.uvm.edu/pdpforage/)

If interested, please complete the application (found on the website) and submit it to Principal Investigator, Dr. Sid Bosworth by July 8, 2014. The training is limited to 20 participants so please fill out the application completely and submit it by the due date.

Feel free to pass this announcement onto co-workers and colleagues in New England.

**This project is sponsored by USDA-SARE Northeast.**

--  
Sid Bosworth  
Extension Agronomist
Application form completed online – enrollment limited to 20 people.

This Northeast SARE professional development project is designed for agriculture service providers in New England. The goal is for participants to be better equipped to assist and advise dairy and livestock farmers in addressing forage and/or weed related issues. Topics will include: forage/pasture, forage weed and poisonous plant identification and biology; effective weed management strategies; forage species selection; field condition evaluation; forage quality evaluation and management; proper harvest and cutting management; and soil fertility management of perennial forage crops. Learn more about the project at: pss.uvm.edu/pdpforage.

An application to participate in this project is required. Please complete the following application no later than July 8, 2014. In addition, you need to discuss your intentions with your supervisor and have their approval for the travel and times you will be spending at workshops and webinars. Please have them mail or email the Supervisor Approval Form to Principal Investigator, Dr. Sid Bosworth by July 8.

The project is limited to 20 participants; applicants will be notified by August 1 about participation.

- **Project Planning Team**
  - Sid Bosworth, University of Vermont, Principal Investigator
  - Dick Brzozowski, University of Maine Cooperative Extension
  - Deb Heleba, University of Vermont Extension
  - Rick Kersbergen, University of Maine Cooperative Extension

1. Please complete your contact information.

   **Name:**

   **Title:**

   **Company:**

   **Address 2:**

   **City/Town:**

   **State:**

   **ZIP:**

   **Email Address:**

   **Work Phone:**

   **Cell Phone:**

2. Select your primary work category from the options listed below.

   - [ ] Extension
   - [ ] USDA agency
   - [ ] State agency
   - [ ] Non-government organization
   - [ ] Private company
   - [ ] Self-employed

3. For how many years have you worked as an agricultural service provider?

   [ ]
4. In what proportion of your current job do you typically work directly with farmers/growers? Choose from the options listed below.

- I do not work directly with farmers/growers.
- Less than 25%
- Between 25% and 50%
- More than 50%

5. Briefly describe your current job responsibilities (in 100 words or less).

6. For what reason(s) are you interested in participating in this professional development project? And/or what do you hope to gain from your participation in this project?

7. On a scale of 0 to 10 (with 10 being expert), what is your current level of expertise in relation to:

   - Forage crop selection, production and management?

   - Weed identification and management?

8. I have downloaded the “Supervisor Statement” and discussed my intention to participate in this professional development project with my supervisor. He/She has sent or will be sending the signed statement stating their approval regarding my participation.

- Yes
- No
- N/A (I am self-employed.)

9. Do you have questions for the project planning team at this point?
Example 3

Introductory information reviewed with accepted applicants at the first workshop.

NE forage and weed identification and management and training project

About the project
This two-year professional development project, funded by Northeast SARE, is designed to help agricultural service providers and personnel working in Extension, USDA NRCS, State agricultural agencies, and non-government organizations throughout New England better identify forage/pasture plants and forage weeds and study pasture and haycrop management strategies to optimize forage production and quality on livestock farms.

Trainings will be conducted through in-person sessions (which will include classroom and in-field components) and webinars (delivered live but also archived as online resources). Participants will be expected to conduct a self-study of assigned forage and/or weed species and develop management "help" factsheets; these will be compiled into a resource guide for use among trainees as well as farmers. Participants will also be expected to conduct a farmer educational activity (e.g., workshop, field day, video, etc.).

Topics to be covered:
- Forage/pasture, weed and poisonous plant identification and biology
- Effective weed management strategies in forage and pasture crops
- Forage species selection
- Field condition evaluation
- Forage quality evaluation and management
- Proper harvest and cutting management
- Soil fertility management of perennial forage crops

Participant benefits:
As a participant of this project, you will receive the following benefits:
- 30 hours of training provided by forage and weed specialists. All expenses (travel, lodging, meals, etc.) will be covered by the grant.
- Forage and weed species ID materials.
- Access to soil and hay probes and other field tools.
- Professional continued education units (CEUs) like CCAs, PATs, etc. as requested.
- Network of trained colleagues throughout New England.

Participant expectations:
- Full participation. Participants must be committed to attending training sessions and following through with the development and implementation of their farmer education programs.
- It is estimated that participant time commitment for the training and self-study will take about 40 hours per year. We expect that participants will participate in every training offered.
- Each participant will select both a weed and a forage species and develop a "help" or factsheet that will outline the biology and management options relevant to New England. The factsheets will be compiled and shared with fellow participants in year 2.
- In the second year, participants will be expected to develop a farmer educational program related to weed and/or forage management for no fewer than 5 producers. We expect that participants will document this programming, outlining successes and difficulties in forage and weed management on these farms. Resources and training will be provided to help facilitate this process for both program development and evaluation.
### NE forage and weed identification and management training project

#### Milestones and project activity table

<table>
<thead>
<tr>
<th>BENEFICIARY MILESTONES</th>
<th>PROJECT ACTIVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Milestone number</strong></td>
<td><strong>Number of beneficiary participants</strong></td>
</tr>
<tr>
<td>1</td>
<td>20 Ag Service Providers</td>
</tr>
<tr>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>5</td>
<td>20</td>
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<tr>
<td>6</td>
<td>20</td>
</tr>
<tr>
<td>7</td>
<td>20</td>
</tr>
<tr>
<td>8</td>
<td>20</td>
</tr>
</tbody>
</table>

**Performance target:** 20 agricultural service providers in New England who gain skills in weed and forage identification and biology, and integrated weed management techniques will provide educational programs and services to 200 experienced and beginning farmers who manage an average of 120 acres; 100 farmers will adopt integrated weed control and forage management practices that extend the grazing season, decrease herbicide usage, reduce purchased feed inputs, and improve animal performance on 100 acres each (10,000 acres total).
NE forage and weed identification and management training project

Final Survey to Verify Performance Target

A. Over the course of this two year project, did you gain new pasture weed species identification skills? Yes ___ No ___ Please describe:

B. Over the course of this two year project, did you gain new forage species identification skills?  
   Yes  No  Please describe:

C. Over the course of this two year project, did you learn new methods to manage pasture weeds?  
   Yes  No  Please describe:

D. Over the course of this two year project, did you learn new methods to manage forages?  
   Yes  No  Please describe:

E. Please describe your work with farmers that helped them improve forage quality:
   a. Number of farmers served:
   b. Types of farms (dairy, small ruminants, beef, poultry; beginning or experienced):
   c. Types of education or technical assistance offered:
   d. Outcomes of this education and TA:
   e. Estimated financial impact made (i.e. how much $ did farmers report saving or generating as a result of these efforts, or how much $ do you estimate farmers saved and/or generated):
Collect baseline data about participants’ demographics, knowledge and skills, and about attitudes and potential obstacles to change.

Example 1

**ENE11-120** Soil Management in Berry Crops as a Model for Management Education  
**Project Leader:** Marvin Pritts, Cornell University

Pre-project registration form – This form was used to collect educators’ demographics and baseline information about their experience in the project content area.

1. Name: ____________________________________________________________
2. Address: __________________________________________________________
   __________________________________________________________
   __________________________________________________________
3. Phone: (   ) - Fax: (   ) -
4. E-mail: ____________________________________________________________
5. County or region covered: __________________________________________
6. Job title: __________________________________________________________
7. Area(s) of professional expertise (check all that apply)
   - Commercial Agriculture
   - Commercial Horticulture
   - Animal Husbandry
   - Pest management
   - Farm Business Management/Economics
   - Post Harvest Technology
   - Other (specify) __________________________
8. Commodity responsibilities (check all that apply)
   - Small fruit/berries
   - Tree Fruit
   - Forage crops
   - Vegetable
   - Crops Dairy
   - Animal Husbandry
   - Natural Resources
   - Maple
   - Other (specify) _________________________________________________
9. Have you previously had training in soil or nutrition management for the following:
   - Small fruit/berries  Y  N  DK (Don’t know)
   - Tree Fruit  Y  N  DK
   - Forage crops  Y  N  DK
   - Vegetable Crops  Y  N  DK
   - Other (__________)  Y  N  DK
   - None  Y  N  DK

10. Have you previously had training in soil health management?  
    Y  N  DK

11. Do you feel competent in assisting commercial berry growers with interpretation of:
    - soil analysis results?  Y  N  DK
    - foliar analysis results?  Y  N  DK

12. Do you feel competent in field identification of nutrient imbalances in berry crops?  
    Y  N  DK

13. Do you feel competent in recommending correction strategies for berry crop?
    - Soil deficiencies  Y  N  DK
    - Foliar deficiencies  Y  N  DK
    - Soil health issues  Y  N  DK
**Educator pre- and post-test** – This test was given to participants at the beginning of project and again after a series of educational events. The baseline data obtained at the beginning of project proved useful for curriculum design, and it provided a benchmark to measure the project’s effect on beneficiary learning.

1. The optimum soil pH range for blueberries is:
   - 4.2 to 4.5
   - 5.5 to 6.0
   - 6.0 to 6.5
   - 6.5 to 7.0
   - Don’t know

2. Changes in soil pH by adding sulfur or lime generally take effect:
   - <3 months after application
   - ≥6 months after application
   - >12 months after application
   - Don’t know

3. The best form of nitrogen to apply to blueberries is:
   - Nitrate
   - Nitrite
   - Ammonium
   - Don’t know

4. Raspberries often display nutrient deficiency or excess symptoms in the field.
   - True
   - False
   - Don’t know

5. Strawberries should be fertilized in spring before berry set.
   - True
   - False
   - Don’t know

6. Optimum soil organic matter content for berry crops is:
   - Less than 3%
   - Greater than 3%
   - Soil organic matter is not a critical factor in to berry crop production
   - Don’t know

7. The best soil for strawberry production is a well-drained sandy loam.
   - True
   - False
   - Don’t know
8. Soil tests attempt to estimate the amount of plant-available nutrients in the soil, not the total amount of nutrients in the soil.
   - True
   - False
   - Don’t know

9. Clays and soils high in organic matter have higher nutrient holding capacity, while sands have a lower nutrient holding capacity.
   - True
   - False
   - Don’t know

10. Nutrient levels in berry plant tissue will always mirror nutrient levels found in soil.
    - True
    - False
    - Don’t know

11. The recommended pH for bramble plantings (raspberries and blackberries) is:
    - 4.2 to 4.5
    - 5.5 to 6.0
    - 6.0 to 6.5
    - 6.5 to 7.0
    - Don’t know

12. It is rare for a single foliar nutrient to be deficient in berry crops; often multiple deficiencies occur simultaneously.
    - True
    - False
    - Don’t know

13. The best time to collect berry leaves for foliar analysis is:
    - March
    - May
    - July
    - December
    - Don’t know

14. Soil tests provide accurate results for all essential mineral nutrients, while foliar analysis does not.
    - True
    - False
    - Don’t know

15. Visual diagnosis of berry crop nutrient problems is accurate and precise.
    - True
    - False
    - Don’t know
16. The recommended pH level for strawberries is:
   ☐ 4.2 to 4.5
   ☐ 5.5 to 6.0
   ☐ 6.0 to 6.5
   ☐ 6.5 to 7.0
   ☐ Don’t know

17. A combination of soil testing, tissue analysis and observation of crop response is the best approach to assessing berry crop nutrient status.
   ☐ True
   ☐ False
   ☐ Don’t know

18. Soil health may be improved by frequent cultivation to improve soil drainage.
   ☐ True
   ☐ False
   ☐ Don’t know

19. Characteristics of a health soil include: (check all that apply)
   ☐ Good soil tilth
   ☐ Sufficient depth
   ☐ An excessive supply of nutrients
   ☐ A small population of micro-organisms
   ☐ Don’t know

20. Soil and leaf samples for testing should be collected in a V- shaped sampling pattern across the entire planting.
   ☐ True
   ☐ False
   ☐ Don’t know
Ask questions to verify the extent of knowledge and skills participants learn through project milestone activities.

Example 1 (assessment of learning through milestone activities; the before/after questions provide baseline and post-event responses to enable assessment of the event’s influence on learning)

Adapted from LNE12-139 Development of disease management, fertility and weed control best practices for Northeast garlic production

**Project Leader:** Crystal Stewart, Cornell Cooperative Extension

Please fill out this brief survey to help us assess how well this educational event met your needs for information about and recommendations for best management practices for garlic production and storage. Your responses will also help us meet your future needs.

I am a (check one) □ Commercial Grower □ Consultant □ Agribusiness □ Extension

1. Listed below are topics presented at today’s event. For each topic, circle your level of understanding **before the event,** and now, **after the event.**

<table>
<thead>
<tr>
<th>Level of understanding before the event</th>
<th>Topic</th>
<th>Level of understanding after the event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non Existent</td>
<td>Importance of harvesting garlic at proper maturity to maximize its storage potential.</td>
<td>Non Existent</td>
</tr>
<tr>
<td>Minimal</td>
<td>Techniques to ensure harvest of garlic at proper maturity</td>
<td>Minimal</td>
</tr>
<tr>
<td>Moderate</td>
<td>Importance of creating an optimal drying environment to obtain high quality, disease-free garlic</td>
<td>Moderate</td>
</tr>
<tr>
<td>Considerable</td>
<td>Conditions for an optimal drying environment and how to create them</td>
<td>Considerable</td>
</tr>
</tbody>
</table>

2. Please rate your overall understanding of techniques to maximize garlic quality from harvest to storage:

   **Before today’s event (check one)**
   
   1 2 3 4 5 6 7 8 9 10

   **After today’s event (check one)**
   
   1 2 3 4 5 6 7 8 9 10
3. Below are recommendations made at today's event. Please circle the best answer(s) for each recommendation.

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>I was doing this within the last 2 years</th>
<th>I plan to do this in the next growing season</th>
<th>I have no plans to do this</th>
<th>I need more information / assistance before I can do this</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cut garlic tops prior to bringing garlic into the drying system</td>
<td>DOING BEFORE</td>
<td>PLAN TO DO</td>
<td>NO PLANS</td>
<td>NEED INFO</td>
</tr>
<tr>
<td>Dry garlic in an area that is warmer than the outside environment</td>
<td>DOING BEFORE</td>
<td>PLAN TO DO</td>
<td>NO PLANS</td>
<td>NEED INFO</td>
</tr>
<tr>
<td>Field grade garlic to remove diseased bulbs</td>
<td>DOING BEFORE</td>
<td>PLAN TO DO</td>
<td>NO PLANS</td>
<td>NEED INFO</td>
</tr>
<tr>
<td>Field grade garlic to separate seed from saleable garlic</td>
<td>DOING BEFORE</td>
<td>PLAN TO DO</td>
<td>NO PLANS</td>
<td>NEED INFO</td>
</tr>
</tbody>
</table>

If you circled more information needed for any of the recommendations above, please tell us what information or assistance you need.

4. What additional questions do you have about garlic harvesting and post-harvest storage?

CERTIFICATION PROGRAM ASSESSMENT (used as needs assessment for future trainings)

How much of your garlic is sold as seed? Please circle the closest answer.

100%  99-75%  74-50%  49-25%  less than 25%

How many acres (or how many cloves) do you have planted as seed garlic? Estimate acres to the tenth of an acre:________________________

What was the estimated dollar value of your whole garlic crop in 2013?________________________

What is your goal for production, in acres or number of bulbs per year:________________________

Do you think you could sell more garlic if you were able to certify your seed as disease and nematode free?

YES  NO

Are you interested in learning more about testing for and managing garlic bloat nematode?

YES  NO
Example 2
The questions on the following pages were developed by Nancy Ellen Kiernan, former Evaluation Specialist for Penn State Extension, for a 2010 workshop with NESARE state program coordinators. There are example questions and answer categories to assess knowledge, skills, attitudes and intentions as a result of a learning event.

Verification Questions to Measure Learning Milestones and Targets of Farmers and a few other important concepts

1. END OF PROGRAM VERIFICATION

<table>
<thead>
<tr>
<th>Milestone: KNOWLEDGE before - after</th>
</tr>
</thead>
</table>

Listed below are topics presented at today’s event. For each topic, circle your knowledge [or, level of understanding] before the event.

<table>
<thead>
<tr>
<th>Topic</th>
<th>NON EXISTENT</th>
<th>MINIMAL</th>
<th>MODERATE</th>
<th>CONSIDERABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loss of nitrate in corn fields in fall</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loss of soil from corn field in fall</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cornell Soil Health Index</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Five benefits of cover crops</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Three planting techniques for cover crops</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Three non-chemical methods to kill cover crops</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Now, after the program, circle your knowledge [or, level of understanding] of each topic:

<table>
<thead>
<tr>
<th>Topic</th>
<th>NON EXISTENT</th>
<th>MINIMAL</th>
<th>MODERATE</th>
<th>CONSIDERABLE</th>
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<tr>
<td>Three non-chemical methods to kill cover crops</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Milestone: ATTITUDE: before - after

Attitude about once impact of the problem

Listed below are two processes that can take place on cornfields in fall. Circle on the LEFT the extent to which you thought it was an ECONOMIC problem for farmers, before the program. On the RIGHT, circle the extent to which you think it is an ECONOMIC problem NOW, after the program.

<table>
<thead>
<tr>
<th>NOT A PROBLEM</th>
<th>MINIMAL PROBLEM</th>
<th>MODERATE PROBLEM</th>
<th>CONSIDERABLE PROBLEM</th>
<th>EROSION OF SOIL ON CORN FIELDS IN FALL</th>
<th>NOT A PROBLEM</th>
<th>MINIMAL PROBLEM</th>
<th>MODERATE PROBLEM</th>
<th>CONSIDERABLE PROBLEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOT A PROBLEM</td>
<td>MINIMAL PROBLEM</td>
<td>MODERATE PROBLEM</td>
<td>CONSIDERABLE PROBLEM</td>
<td>LOSS OF NITRATE IN CORN FIELDS IN FALL</td>
<td>NOT A PROBLEM</td>
<td>MINIMAL PROBLEM</td>
<td>MODERATE PROBLEM</td>
<td>CONSIDERABLE PROBLEM</td>
</tr>
</tbody>
</table>

Milestone: ATTITUDE: before - after

Attitude about another impact of the problem

Listed below are two processes that can take place on cornfields in fall. Circle on the LEFT the extent to which you thought it was an ENVIRONMENTAL problem for farmers, before the program. On the RIGHT, circle the extent to which you think it is an ENVIRONMENTAL problem NOW, after the program.

<table>
<thead>
<tr>
<th>ATTITUDE BEFORE</th>
<th>PROCESSES</th>
<th>ATTITUDE AFTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOT A PROBLEM</td>
<td>EROSION OF SOIL ON CORN FIELDS IN FALL</td>
<td>NOT A PROBLEM</td>
</tr>
<tr>
<td>MINIMAL PROBLEM</td>
<td>LOSS OF NITRATE IN CORN FIELDS IN FALL</td>
<td>MINIMAL PROBLEM</td>
</tr>
<tr>
<td>MODERATE PROBLEM</td>
<td>CONSIDERABLE PROBLEM</td>
<td>MODERATE PROBLEM</td>
</tr>
<tr>
<td>CONSIDERABLE PROBLEM</td>
<td>EROSION OF SOIL ON CORN FIELDS IN FALL</td>
<td>CONSIDERABLE PROBLEM</td>
</tr>
</tbody>
</table>
Milestone: ATTITUDE: before - after

Attitude about the multiple effects of the solution

Listed below are possible effects that cover crops can have on a farm. On the LEFT, please circle how useful you thought each one was to you before today’s event. On the RIGHT, circle how useful you think it is NOW, after the event.

<table>
<thead>
<tr>
<th>USEFUL BEFORE</th>
<th>EFFECTS OF COVER CROPS</th>
<th>USEFUL NOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOT AT ALL</td>
<td>MINIMAL</td>
<td>MODERATE</td>
</tr>
<tr>
<td></td>
<td>REDUCE LOSS OF SOIL</td>
<td>NOT AT ALL</td>
</tr>
<tr>
<td></td>
<td>REDUCE LOSS OF NITRATE</td>
<td>NOT AT ALL</td>
</tr>
<tr>
<td></td>
<td>REDUCE NUTRIENT INPUT</td>
<td>NOT AT ALL</td>
</tr>
<tr>
<td></td>
<td>COSTS</td>
<td>NOT AT ALL</td>
</tr>
<tr>
<td></td>
<td>IMPROVE SOIL HEALTH</td>
<td>NOT AT ALL</td>
</tr>
<tr>
<td></td>
<td>REDUCE LEACHING FROM</td>
<td>NOT AT ALL</td>
</tr>
<tr>
<td></td>
<td>SILAGE</td>
<td></td>
</tr>
</tbody>
</table>

Milestone: ATTITUDE: before - after

Attitude about adopting a recommended solution

Please place a (B) on the step signifying how motivated you were before the event to use cover crops on silage corn fields. Place an (N) on the step signifying how motivated you are NOW, after the event, to use cover crops on silage corn.
Milestone: SKILLS before - after (for paper or Survey Monkey)

Listed below are skills addressed at today’s event. **Before** the event, how effective were you in each of the skills below.

- Selecting cover crops that balance benefits and barriers
  - NOT AT ALL
  - MINIMALLY
  - MODERATELY
  - CONSIDERABLY

- Collecting soil samples for the Cornell Soil Health Index
  - NOT AT ALL
  - MINIMALLY
  - MODERATELY
  - CONSIDERABLY

- Using a roller crimper to kill cover crops
  - NOT AT ALL
  - MINIMALLY
  - MODERATELY
  - CONSIDERABLY

**Now,** as a result of your experience in today’s event, how effective are you in each of the skills below.

- Selecting cover crops that balance benefits and barriers
  - NOT AT ALL
  - MINIMALLY
  - MODERATELY
  - CONSIDERABLY

- Collecting soil samples for the Cornell Soil Health Index
  - NOT AT ALL
  - MINIMALLY
  - MODERATELY
  - CONSIDERABLY

- Using a roller crimper to kill cover crops
  - NOT AT ALL
  - MINIMALLY
  - MODERATELY
  - CONSIDERABLY

---

Milestone: SKILLS before - after (for Survey Monkey only)

Listed below are skills addressed in today’s event. On the left, choose how effective you were in using each skill before the program. On the right, choose how effective you are in using each skill now, as a result of the program.

**Before**

- Selecting cover crop that balance benefits and barriers
  - NOT AT ALL
  - MINIMALLY
  - MODERATELY
  - CONSIDERABLY

- Collecting soil samples for the Cornell Soil Health Index
  - NOT AT ALL
  - MINIMALLY
  - MODERATELY
  - CONSIDERABLY

**After**

- Selecting cover crop that balance benefits and barriers
  - NOT AT ALL
  - MINIMALLY
  - MODERATELY
  - CONSIDERABLY

- Collecting soil samples for the Cornell Soil Health Index
  - NOT AT ALL
  - MINIMALLY
  - MODERATELY
  - CONSIDERABLY
Milestone: INTENTIONS before - after

Before this event, how likely were you to carry out the following actions on your farm?

<table>
<thead>
<tr>
<th>Action</th>
<th>NOT TOO LIKELY</th>
<th>SOMEWAT LIKELY</th>
<th>MODERATELY LIKELY</th>
<th>VERY LIKELY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collect soil samples for the Cornell Soil Health Index</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant a cover crop after corn silage</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use a roller crimper to kill cover crops</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As a result of today’s program, how likely are you to carry out the following actions within the next 6 months?

<table>
<thead>
<tr>
<th>Action</th>
<th>NOT TOO LIKELY</th>
<th>SOMEWAT LIKELY</th>
<th>MODERATELY LIKELY</th>
<th>VERY LIKELY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collect soil samples for the Cornell Soil Health Index</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant a cover crop after corn silage</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use a roller crimper to kill cover crops</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Milestone: PREVIOUS BEHAVIOR AND INTENTIONS

Listed below are some recommendations made at today’s event. Please circle the best answer(s) for each recommendation.

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>I was doing this in the past 2 years</th>
<th>I plan to do this within 6 months</th>
<th>No plans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collect soil samples for the Cornell Soil Health Index</td>
<td>BEFORE</td>
<td>PLAN</td>
<td>NO PLAN</td>
</tr>
<tr>
<td>Plant cover crops on at least 40 acres of silage corn</td>
<td>BEFORE</td>
<td>PLAN</td>
<td>NO PLAN</td>
</tr>
<tr>
<td>Use a roller crimper to kill cover crops</td>
<td>BEFORE</td>
<td>PLAN</td>
<td>NO PLAN</td>
</tr>
<tr>
<td>Use wheat as a cover crop</td>
<td>BEFORE</td>
<td>PLAN</td>
<td>NO PLAN</td>
</tr>
<tr>
<td>Use rye as a cover crop</td>
<td>BEFORE</td>
<td>PLAN</td>
<td>NO PLAN</td>
</tr>
<tr>
<td>Use oats as a cover crop</td>
<td>BEFORE</td>
<td>PLAN</td>
<td>NO PLAN</td>
</tr>
<tr>
<td>Use hairy vetch as a cover crop</td>
<td>BEFORE</td>
<td>PLAN</td>
<td>NO PLAN</td>
</tr>
</tbody>
</table>
Milestone: PREVIOUS BEHAVIOR and INTENTION

In the last 3 years, have you used any cover crops on silage corn on your farm? (circle number)

1. NO
2. YES

If YES, which cover crops did you use in the last 3 years? (circle number)

1. RYE
2. HAIRY VETCH
3. WHEAT
4. OATS
5. OTHER
6. NONE OF THE ABOVE

Within the next year, which cover crops if any, will you use on silage corn? (circle number)

1. RYE
2. HAIRY VETCH
3. WHEAT
4. OATS
5. OTHER
6. NONE OF THE ABOVE

Milestone: INTENTION

Describe a situation that you can change on your farm in the next 3 months, using what you learned today.

2. END OF PROGRAM VERIFICATION: THE EDUCATIONAL PROCESS

MILESTONE: ATTITUDE toward program information

To what extent do you think this education program has included each of the following.

<table>
<thead>
<tr>
<th>Unbiased information</th>
<th>NOT AT ALL</th>
<th>MINIMALLY</th>
<th>MODERATELY</th>
<th>CONSIDERABLY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timely information</td>
<td>NOT AT ALL</td>
<td>MINIMALLY</td>
<td>MODERATELY</td>
<td>CONSIDERABLY</td>
</tr>
<tr>
<td>Useful information</td>
<td>NOT AT ALL</td>
<td>MINIMALLY</td>
<td>MODERATELY</td>
<td>CONSIDERABLY</td>
</tr>
<tr>
<td>Research based</td>
<td>NOT AT ALL</td>
<td>MINIMALLY</td>
<td>MODERATELY</td>
<td>CONSIDERABLY</td>
</tr>
</tbody>
</table>
MILESTONE: ATTITUDE toward program delivery

Several formats and methods were used at today’s event to explore the topic of cover crops. How effective was each format or method in helping you to discover new ideas about cover crops?

<table>
<thead>
<tr>
<th>Format/Method</th>
<th>Effectiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm Visits</td>
<td>NOT AT ALL</td>
</tr>
<tr>
<td></td>
<td>MINIMALLY</td>
</tr>
<tr>
<td></td>
<td>MODERATELY</td>
</tr>
<tr>
<td></td>
<td>CONSIDERABLY</td>
</tr>
<tr>
<td>Discussions w/ Other Farmers</td>
<td>NOT AT ALL</td>
</tr>
<tr>
<td></td>
<td>MINIMALLY</td>
</tr>
<tr>
<td></td>
<td>MODERATELY</td>
</tr>
<tr>
<td></td>
<td>CONSIDERABLY</td>
</tr>
<tr>
<td>Videos</td>
<td>NOT AT ALL</td>
</tr>
<tr>
<td></td>
<td>MINIMALLY</td>
</tr>
<tr>
<td></td>
<td>MODERATELY</td>
</tr>
<tr>
<td></td>
<td>CONSIDERABLY</td>
</tr>
</tbody>
</table>

MILESTONE: ATTITUDE toward program instructor

Knowledge of the subject matter: (circle number)

1. NOT WELL INFORMED
2. WELL INFORMED
3. EXCEPTIONALLY WELL INFORMED

Preparation for event: (circle number)

1. NOT WELL PREPARED
2. WELL PREPARED
3. EXCEPTIONALLY WELL PREPARED