

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 outcomefunded 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.



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.



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.



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.



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.



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 you 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.

Appendix

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

Examples

Research and education performance targets	Indicators
Example from preproposal applicant guide 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. Example from preproposal applicant guide 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	-Number of farmers who implement nutrient mgt. plans -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 -Number of farmers who develop an employee training program -Number of full time employees they have -Farmer-reported data about employee absenteeism before training program and employee absenteeism data
an average of 50 per year per farm compared to the previous three years. Example from preproposal applicant guide 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.	after training program -Number of farmers who develop and implement a direct marketing plan -Farmer-reported data about annual sales before the plan and annual sales after implementing the plan
Adapted from LNE14-335 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 vegetable growers who integrate a recommended soil borne disease management practice and the practices used (brassica cover crops, reduced tillage or other) -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 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 farmers who adopt FAMACHA and other non-chemical internal parasite control methods and the methods adopted -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.

- -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)

Professional development performance targets

From ENE13-127

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.

Indicators

- -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

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 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

From ENE14-130

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 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 ENE14-133

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.

- -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

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.

Recommendation	I was doing this within the last 2 years before this project	I began doing this after learning through this project	I plan to do this within the next 6 months	I have no plans to do this
Conduct plankton monitoring to determine blister worm larval abundance	DOING BEFORE	STARTED DOING	PLAN TO DO	NO PLANS
Periodically air dry oysters	DOING BEFORE	STARTED DOING	PLAN TO DO	NO PLANS

oysters in surface cages	DOING BE	FORE	STARTED DO	JING	PLAN TO DO	J N	IO PLANS	
6) Did you adopt preventing and n	•	•	overed in our	workshop	, meeting pr	esentation	ns or site	visit for
	YES/NO							
If yes, please des	cribe what you	are doing.						
7) Please describ	e any other way	ys you and v	your farm be	nefited fro	m this proje	ct.		
Please answer th recommended b	•	low if you a	adopted any	blister wo	rm manager	ment prac	tices	
8) On a scale of 1 severity of blister practices recomm <i>BEFORE</i> and a number of the scale of 1 several of 1	worm infestat nended by this p	ions experi	enced on you	ır farm <i>BEF</i>	ORE your ad	option of	managem	nent
Severity of black adopting recom	ister worm infe nmended mana			•	of blister wo			
1 2	3	4	5	1	2	3	4	5
9) What is the ga worm control me		-		our adopt	ion of recom	nmended l	blister	
10) What was the worm control pra	-			fore you ac	dopted reco	mmended	blister	
11) How much hapractices? (an es			nplement the	new recor	nmended bl	ister worr	n control	
12) Are you expe help from this pr			se of the best	managem	ent practice	s that you	ı would lik	ke

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. Whic	h of the following categories best describes you?
	Ag service Provider/Educator Farmer/Grower/Producer Student Other (please specify)
2. Did y	ou 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
attend	uestions on this page are for agricultural service providers or educators who ed one or more native pollinator workshops. Skip to question 8 if you are a r who attended a workshop.
•	ou provide information about native pollinator conservation to farmers in any of your aming following the training(s) you attended?
	Yes No
If no, v	would you like further training?
4. If you apply):	answered 'Yes' to question 3, in what ways did farmers receive this information from you?(check all that
□ Wo	orkshop ass

 □ 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 pollinatorsOther (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)
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

Performance Target: BEHAVIOR before - after

In the last 3 years, how often did you do each of the following? (circle the answer)

Plant a cover crop after corn silage HARDLY EVER SOMETIMES OFTEN

Collect soil samples for the Cornell HARDLY EVER SOMETIMES OFTEN

Soil Health Index

Since the Cover Crop education program, how often did you do each of the following? (circle the answer)

Plant a cover crop after corn silage HARDLY EVER SOMETIMES OFTEN

Collect soil samples for the Cornell HARDLY EVER SOMETIMES OFTEN

Soil Health Index

Performance Target: BEHAVIOR before - after

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

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

Performance Target: other type of BEHAVIOR before - after

Since the event, to what extent have you been able to do each of the following? (circle all that apply)

Write a nutrient management plan	THOUGHT ABOUT	STARTED	COMPLETED	NOT YET	DID BEFORE
	OR DISCUSSED	WRITING	WRITING	STARTED	PROGRAM
Write a mission statement for farm operation	THOUGHT ABOUT	STARTED	COMPLETED	NOT YET	DID BEFORE
	OR DISCUSSED	WRITING	WRITING	STARTED	PROGRAM
Set SMART goals	THOUGHT ABOUT OR DISCUSSED	STARTED WRITING	COMPLETED WRITING	NOT YET STARTED	DID BEFORE PROGRAM

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

	New ACRES planted with cover crop on corn silage	
Used wheat as a cover crop		ACRES
Used rye as a cover crop	3	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)

Conservation district (office, meeting, personnel)	NOT	MODERATELY	VERY	DIDN'T
	HELPFUL	HELPFUL	HELPFUL	USE
Consultant	NOT	MODERATELY	VERY	DIDN'T
	HELPFUL	HELPFUL	HELPFUL	USE
Fertilizer dealer	NOT	MODERATELY	VERY	DIDN'T
	HELPFUL	HELPFUL	HELPFUL	USE
Extension	NOT	MODERATELY	VERY	DIDN'T
	HELPFUL	HELPFUL	HELPFUL	USE

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 31**st. For an application go to:

http://www.farmland.org/programs/states/ma/new-england.asp For more information, please contact Diane Held at dheld@farmland.org or (716) 652-0100.

Print Form

Application for

Farmland Advisors: A Training Program about Farmland Access and Farm Transfers Due by October 31, 2012

Name:		
Organization:		
Position:		
Address:		
Phone:		
Email:		
ADDITION TO THE PERSON NAMED IN CONTROL OF THE PERSON NAMED IN	explain your interest in Farmland Advisors: A Training Program about Farmland ansfers. Please include how this training will apply to your work.	nd
accepted, I commit to	s application does not guarantee my acceptance into this training program. If I are on an approximate 2 year training program (from October 2012 through May 2014 I will do all of the following:	
• complete self e	evaluation surveys to gauge my knowledge about farmland access issues and farm	n transfers,
• participate in u	up to 3 training webinars in the winter of 2013,	
AND PROPERTY OF THE PROPERTY O	nal conference in the fall of 2013,	
•	up to 3 peer-to-peer teleconferences in the winter of 2014,	
	ess and farmland transfer information learned with farmers and landowners, and	
• complete assess	sments to track information sharing with farmers and landowners.	

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.



Signature:

Supervisor's Signature:



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 **f**or 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/

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.

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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

1. Please complete your contact information.

o Deb Heleba, University of Vermont Extension

o Dick Brzozowski, University of Maine Cooperative Extension

o Rick Kersbergen, University of Maine Cooperative Extension

Name:	
Title:	
Company:	
Address 2:	
City/Town:	
State:	
ZIP:	
Email Address:	
Work Phone:	
Cell Phone:	
2. Select your prin	nary work category from the options listed below.
Extension	
USDA agency	
State agency	
Non-government organ	nization
O Private company	
Self-employed	
3. For how many y	ears have you worked as an agricultural service provider?
(6)	

4. In what proporti	on of yo	our curr	ent job	do you	typical	y work	directly	/ with		
farmers/growers? Choose from the options listed below.										
I do not work directly wit	th farmers/g	rowers.								
Less than 25%										
Between 25% and 50%										
More than 50%										
5. Briefly describe	your cı	ırrent jo	ob respo	onsibilit	ties (in '	100 woi	ds or le	ess).		
	254es-1	() (A) (A)	92.					78	A	
									7	
6. For what reason	(s) are	you inte	erested	in parti	cipatin	g in this	profes	sional d	levelop	ment
project? And/or wh	nat do y	ou hop	e to gai	n from y	your pa	rticipat	ion in tl	nis proje	ect?	
									~	
7. On a scale of 0 t	o 10 (w	ith 10 b	eing ex	pert), w	hat is y	our curi	ent lev	el of ex	pertise	in
relation to:										
Forage crop selection, production and management?	Ô	O	Ŏ	Ó	Ó	Ô	Ŏ	Ô	Ö	0
Weed identification and management?	0	0	0	0	0	0	0	0	0	0
8. I have download	led the	"Super	visor St	atemen	t" and	discuss	ed my i	ntentio	n to	
participate in this	profess	ional de	evelopn	nent pro	ject wi	th my s	upervis	or. He/S	he has	sent
or will be sending	the sign	ed stat	ement	stating	their ap	proval	regardiı	ng my p	articipa	tion.
O Yes										
O No										
N/A (I am self-employed	d.)									
O Do you have and	otiono	for the	nroicot	nlanni	ıa toom	of this	noint?			
9. Do you have que	Stions	for the	project	piannir	ig team	at this	pointr		_	
									<u> </u>	

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

	BI	ENEFICIARY MILESTONES		PROJECT ACTIVITY
Milestone number	Number of beneficiary participants	Learning milestone (what beneficiaries learn and do)	Date completed	What the project team does
1	20 Ag Service Providers	Learn about the project and commit to participate by completing an online survey which includes information about the project, participant expectations, and a pretest in weed and forage (as a benchmark from which to measure change in knowledge, attitudes, skills, and behavior).	July/Aug20 14	Design registration info (as online tool) to colleagues throughout northern New England (CT, MA, ME, NH, RI, and VT).
2	20	Participate in first annual in-person training. Learn forage and weed species identification and management	Sept 2014	Organize and conduct in- person training.
3	40	Begin monthly webinar training series. Learn forage management and weed control strategies-biological, chemical, cultural, and mechanical.	November 2014	Identify and confirm speakers for webinar series.
4	20	Identify weed of focus. Each participant will assemble, evaluate and use effective webbased and hard copy references for weed and forage identification and adaptation. They will use a management strategy template to develop a "helps" factsheet which outlines forage and weed identification and management recommendations.	February 2015	Coach participants with factsheet assignment. Compile factsheets as 1) handouts for second annual in-person training and 2)draft of a regional management guide.
5	20	Participate in second in-person training. Participants will present the factsheet they prepared about their weed/forage of focus. They will also learn about best management adult education and IT techniques to use with farmer clients during field season.	April/May 2015	Organize and conduct in- person training.
6	20	Use collection of factsheets to adapt to local conditions in their work with farm clients. They will develop video and/or conduct farmer education event.	September 2015	Coach participants with video production, farmer education events (technical assistance).
7	20	Will work with no fewer than five farmers per year. They will document, via a case study example participating farm(s). Conduct evaluation among farmer clients.	October 2015	Provide common verification tool; assemble case studies.
8	20	Share knowledge learned, practices implemented, and attitudes changed with project team.	November 2015- June 2016	Conduct online project evaluation.

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								
	\square Vegetable								
	☐ Crops Dairy								
	☐ Animal Husbandry								
	☐ Natural Resources								
	☐ Maple								
	Other (specify)								

9. Have yo	ou previously had training	g in soil	or nutr	ition management for the following:
	Small fruit/berries	Υ	N	DK (Don't know)
	Tree Fruit	Υ	N	DK
	Forage crops	Υ	N	DK
	Vegetable Crops	Υ	N	DK
	Other ()	Υ	N	DK
	None	Υ	N	DK
10. Have y	ou previously had traini	ng in so	il healtl	n management?
		Υ	N	DK
11. Do you	u feel competent in assis soil analysis results?	ting cor	mmercia	al berry growers with interpretation of
		Υ	Ν	DK
	foliar analysis results?			
		Υ	N	DK
12. Do you	ı feel competent in field	identifi	cation o	of nutrient imbalances in berry crops?
		Υ	N	DK
13. Do you	u feel competent in reco	mmend	ing cori	rection strategies for berry crop?
	Soil deficiencies	Υ	N	DK
	Foliar deficiencies	Υ	N	DK
	Soil health issues	Υ	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%
	$\ \square$ 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.
	☐ 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.
	☐ 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.
	☐ 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.
	☐ False
	☐ Don't know
15.	. Visual diagnosis of berry crop nutrient problems is accurate and precise.
	☐ False
	☐ Don't know

16.	The red	commended 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 comb	pination of soil testing, tissue analysis and observation of crop response is the best approach to
	assessi	ng berry crop nutrient status.
		True
		False
		Don't know
18.	Soil he	alth may be improved by frequent cultivation to improve soil drainage.
		True
		False
		Don't know
19.	Charac	teristics 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 an	d leaf samples for testing should be collected in a V- shaped sampling pattern across the entire
	plantin	g.
		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

Project	Leader: C	rystai Ste	wart, Corn	eii C	ooperative	EXT	ension			
and reco		ons for bes							A CONTRACTOR OF THE PROPERTY OF	s for information about esponses will also help
I am a (cl	neck one)	Com	mercial Gro	wer	Const	ıltar	Agr	ribusiness	Extens	sion
		e topics pre after the e		oday'	s event. For	each	topic, circ	cle your lev	el of unders	tanding <i>before the</i>
Level of	ınderstan	ding <i>before</i>	e the event		Topic		Level of	understand	ding <i>after th</i>	ne event
Non Existent	Minimal	Moderate	Considerab	1 1 1	Importance of harvesting gat at proper maturity to maximize its storage poten	rlic	Non Existent	Minimal	Moderate	Considerable
Non Existent	Minimal	Moderate	Considerab	9	Fechniques to ensure harves garlic at propo maturity	st of	Non Existent	Minimal	Moderate	Considerable
Non Existent	Minimal	Moderate	Considerab	6	Importance of creating an optimal dryin environment obtain high quality, diseas free garlic	g to	Non Existent	Minimal	Moderate	Considerable
Non Existent	Minimal	Moderate	Considerab	e l	Conditions for optimal dryin environment how to create them	g and	Non Existent	Minimal	Moderate	Considerable
			rstanding of	techn	iques to maxi	imize	e garlic qual	lity from hai	vest to stora	ge:
Before toda	ny's event (check one)	4 Ic		1.0	7	l o	Lo	110	٦
1		3	4 5	N.	6	7	8	9	10	
After today	's event (cl	neck one)								_
1	2	3	4 5	9	6	7	8	9	10	

3. Below are recommendation	mendations made at I was doing this within the last 2 years	today's event. Please I plan to do this in the next growing season	e circle the best ans I have no plans to do this	wer(s) for each recommendation. I need more information / assistance before I can do this
Cut garlic tops prior to bringing garlic into the drying system	DOING BEFORE	PLAN TO DO	NO PLANS	NEED INFO
Dry garlic in an area that is warmer than the outside environment	DOING BEFORE	PLAN TO DO	NO PLANS	NEED INFO
Field grade garlic to remove diseased bulbs	DOING BEFORE	PLAN TO DO	NO PLANS	NEED INFO
Field grade garlic to separate seed from saleable garlic	DOING BEFORE	PLAN TO DO	NO PLANS	NEED INFO
If you circled more in assistance you need.	formation needed fo	r any of the recomm	endations above, pl	ease tell us what information or
4. What additional o	questions do you hav	e about garlic harve	sting and post-harv	est storage?
CERTI	FICATION PROGRA	M ASSESSMENT (us	sed as needs asses	sment for future trainings)
How much of your g	arlic is sold as seed?	Please circle the clo	sest answer.	
100% 9	9-75% 74-	-50% 49-	25% less	than 25%
How many acres (or acre:		o you have planted a	as seed garlic? Estin	nate acres to the tenth of an
What was the estima	ated dollar value of y	our whole garlic cro	p in 2013?	
What is your goal fo	r production, in acre	s or number of bulbs	s per year:	
Do you think you co	uld sell more garlic if	fyou were able to ce	rtify your seed as d	isease and nematode free?
YES	NO			
Are you interested in	n learning more abou	ıt testing for and ma	naging 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

Milestone: KNOWLEDGE before - after

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

Loss of nitrate in corn fields in fall	NON EXISTENT	MINIMAL	MODERATE	CONSIDERABLE
Loss of soil from corn field in fall	NON EXISTENT	MINIMAL	MODERATE	CONSIDERABLE
Cornell Soil Health Index	NON EXISTENT	MINIMAL	MODERATE	CONSIDERABLE
Five benefits of cover crops	NON EXISTENT	MINIMAL	MODERATE	CONSIDERABLE
Three planting techniques for cover crops	NON EXISTENT	MINIMAL	MODERATE	CONSIDERABLE
Three non-chemical methods to kill cover crops	NON EXISTENT	MINIMAL	MODERATE	CONSIDERABLE
Now, after the program, circle your knowledge [or, level or	of understanding]	of each topi	c:	
Loss of nitrate in corn fields in fall	NON EXISTENT	MINIMAL	MODERATE	CONSIDERABLE
Loss of soil from corn field in fall	NON EXISTENT	MINIMAL	MODERATE	CONSIDERABLE
Cornell Soil Health Index	NON EXISTENT	MINIMAL	MODERATE	CONSIDERABLE
Five benefits of cover crops	NON EXISTENT	MINIMAL	MODERATE	CONSIDERABLE
Three planting techniques for cover crops	NON EXISTENT	MINIMAL	MODERATE	CONSIDERABLE

NON EXISTENT

Three non-chemical methods to kill cover crops

MINIMAL

MODERATE

CONSIDERABLE

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.

NOT A	MIMINAL	MODERATE	CONSIDERABLE	EROISION OF SOIL ON	NOT A	MIMINAL	MODERATE	CONSIDERABLE
PROBLEM	PROBLEM	PROBLEM	PROBLEM	CORN FIELDS IN FALL	PROBLEM	PROBLEM	PROBLEM	PROBLEM
NOT A	MIMINAL	MODERATE	CONSIDERABLE	LOSS OF NITRATE IN	NOT A	MIMINAL	MODERATE	CONSIDERABLE
PROBLEM	PROBLEM	PROBLEM	PROBLEM	CORN FIELDS IN FALL	PROBLEM	PROBLEM	PROBLEM	PROBLEM

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.

ATTITUDE BEFORE			PROCESSES	\mathbf{A}				
NOT A	MIMINAL	MODERATE	CONSIDER ABLE	EROISION OF SOIL ON	NOT A	MIMINAL	MODERATE	CONSIDERABLE
PROBLEM	PROBLEM	PROBLEM	PROBLEM	CORN FIELDS IN FALL	PROBLEM	PROBLEM	PROBLEM	PROBLEM
NOT A	MIMINAL	MODERATE	CONSIDER ABLE	LOSS OF NITRATE IN	NOT A	MIMINAL	MODERATE	CONSIDERABLE
PROBLEM	PROBLEM	PROBLEM	PROBLEM	CORN FIELDS IN FALL	PROBLEM	PROBLEM	PROBLEM	PROBLEM

Milestone: ATTITUDE: before - after

Attitude about the multiple effects of the solution

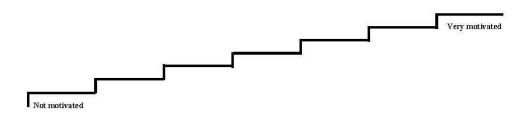
Listed below are possible effects that cover crops can have on a farm. On the *LEFT*, please circle how useful you thought each one was to you *before* today's event. On the *RIGHT*, circle how useful you think it is NOW, *after* the event.

USEFUL BEFORE				EFFECTS OF COVER CROPS	USEFUL NOW			
NOT AT ALL	MINIMAL	MODERATE	EXTENSIVE	REDUCE LOSS OF SOIL	NOT AT ALL	MINIMAL	MODERATE	EXTENSIVE
NOT AT ALL	MINIMAL	MODERATE	EXTENSIVE	REDUCE LOSS OF NITRATE	NOT AT ALL	MINIMAL	MODERATE	EXTENSIVE
NOT AT ALL	MINIMAL	MODERATE	EXTENSIVE	REDUCE NUTRIENT INPUT	NOT AT ALL	MINIMAL	MODERATE	EXTENSIVE
NOT AT ALL	MINIMAL	MODERATE	EXTENSIVE	IMPROVE SOIL HEALTH	NOT AT ALL	MINIMAL	MODERATE	EXTENSIVE
NOT AT ALL	MINIMAL	MODERATE	EXTENSIVE	REDUCE LEACHAING FROM SILAGE	NOT AT ALL	MINIMAL	MODERATE	EXTENSIVE

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.

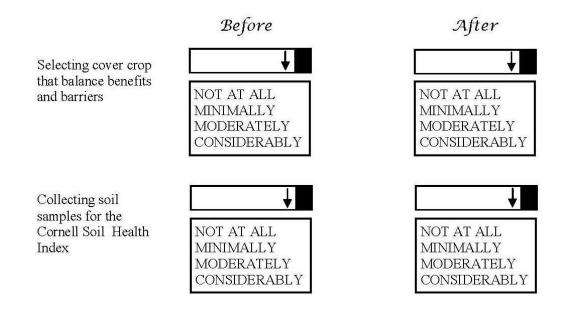
Selecting cover crops that balance benefits and barriers	NOT AT ALL	MINIMALLY	MODERATELY	CONSIDERABLY
Collecting soil samples for the Cornell Soil Health Index	NOT AT ALL	MINIMALLY	MODERATELY	CONSIDERABLY
Using a roller crimper to kill cover crops	NOT AT ALL	MINIMALLY	MODERATELY	CONSIDERABLY

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' 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.



Milestone: INTENTIONS before - after

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

Collect soil samples for the Cornell Soil Health Index	NOT TOO LIKELY	SOMEWHAT LIKELY	MODERATELY LIKELY	VERY LIKELY
Plant a cover crop after corn silage	NOT TOO LIKELY	SOMEWHAT LIKELY	MODERATELY LIKELY	VERY LIKELY
Use a roller crimper to kill cover crops	NOT TOO LIKELY	SOMEWHAT LIKELY	MODERATELY LIKELY	VERY LIKELY
1. 6. 1. 2	1 19 1	4.4 6.11		10

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

Collect soil samples for the Cornell Soil Health Index	NOT TOO LIKELY	SOMEWHAT LIKELY	MODERATELY LIKELY	VERY LIKELY
Plant a cover crop after corn silage	NOT TOO LIKELY	SOMEWHAT LIKELY	MODERATELY LIKELY	VERY LIKELY
Use a roller crimper to kill cover crops	NOT TOO LIKELY	SOMEWHAT LIKELY	MODERATELY LIKELY	VERY LIKELY

Milestone: PREVIOUS BEHAVIOR AND INTENTIONS

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

Recommendations	I was doing this in the past 2 years	I plan to do this within 6 months	No plans
Collect soil samples for the Cornell Soil Health Index	BEFORE	PLAN	NO PLAN
Plant cover crops on at least 40 acres of silage corn	BEFORE	PLAN	NO PLAN
Use a roller crimper to kill cover crops	BEFORE	PLAN	NO PLAN
Use wheat as a cover crop	BEFORE	PLAN	NO PLAN
Use rye as a cover crop	BEFORE	PLAN	NO PLAN
Use oats as a cover crop	BEFORE	PLAN	NO PLAN
Use hairy vetch as a cover crop	BEFORE	PLAN	NO PLAN

Milestone: PREVIOUS BEHAVIOR and INTENTION

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

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.

Unbiased information	NOT AT ALL	MINIMALLY	MODERATELY	CONSIDERABLY
Timely information	NOT AT ALL	MINIMALLY	MODERATELY	CONSIDERABLY
Useful information	NOT AT ALL	MINIMALLY	MODERATELY	CONSIDERABLY
Research based information	NOT AT ALL	MINIMALLY	MODERATELY	CONSIDERABLY

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?

Format/Method	Effectiveness			
FARM VISITS	NOT AT ALL	MINIMALLY	MODERATELY	CONSIDERABLY
DISCUSSIONS W/OTHER FARMERS	NOT AT ALL	MINIMALLY	MODERATELY	CONSIDERABLY
VIDEOS	NOT AT ALL	MINIMALLY	MODERATELY	CONSIDERABLY

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