RUTGERS
THE STATE UNIVERSITY
OF NEW JERSEY

Ten Easy Steps to Program Impact Evaluation

Daniel Kluchinski
County Agricultural Agent and Chair
Department of Agricultural and Resource Management Agents

NEW JERSEY AGRICULTURAL EXPERIMENT STATION
RUTGERS COOPERATIVE EXTENSION

Introduction

Despite training efforts and materials developed for extension personnel on reporting impact of their programmatic efforts, the submitted reports often fall short of the true program impact assessment data.

Why?

Why?

Introduction

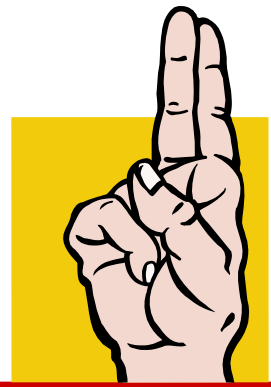
However in an era of funding shortfalls and increased accountability, every extension educator must conduct and report such data.

… out of sight,
out of mind,
out of money…

Introduction

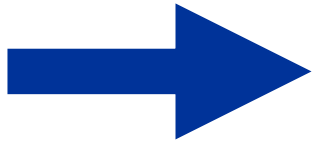
Meaningful program impact evaluation will:

- Provide tangible evidence of the importance and impact of the work you are doing
- Prove valuable for your job performance evaluation
- Be of interest to decision makers
- Be of interest to your clientele
- Be of interest to your professional peers
- Help maintain or gain financial support for Extension programming



What is a program?

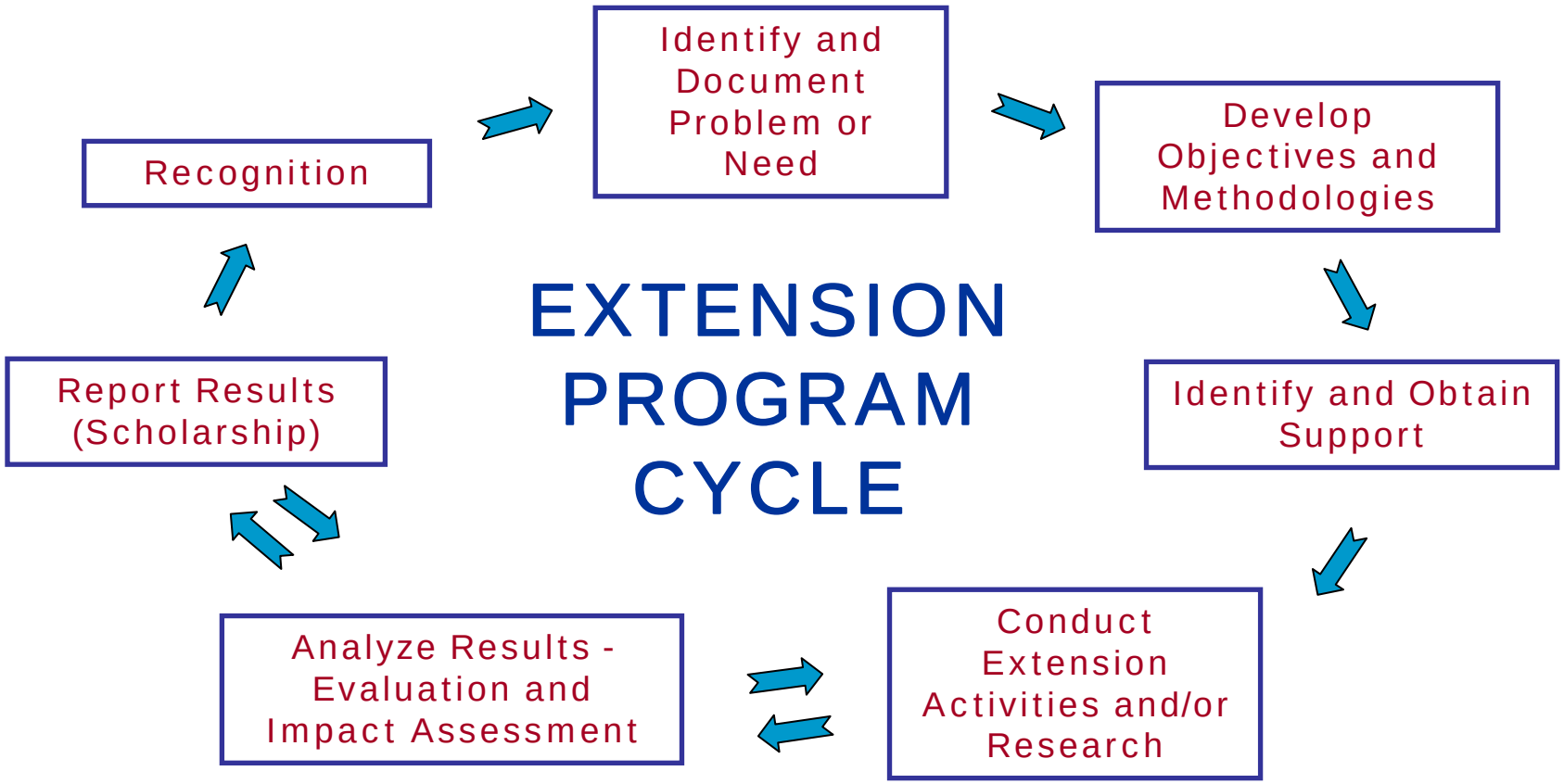
Educational meeting
Twilight event
Workshop



Program =

- A planned, coordinated group of activities, procedures, etc., often for a specific purpose or outcome
  - Addresses a specific need, problem or situation
  - Shows what activities have taken place
  - Reports what measurable changes have occurred

What is a program?

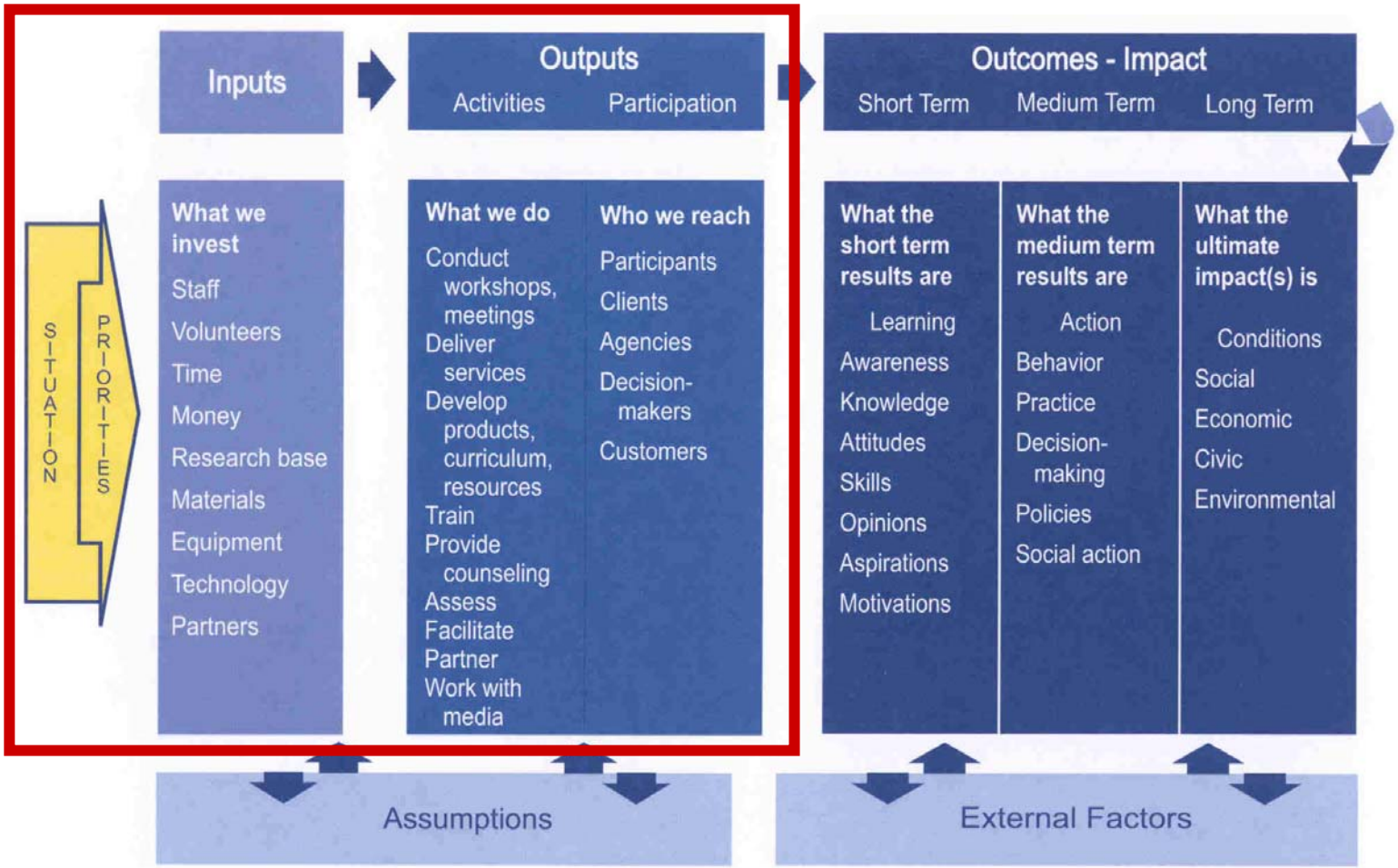


Z. R. Helsel and D. Kluchinski, Rutgers Cooperative Extension, 2005.

What is evaluation?

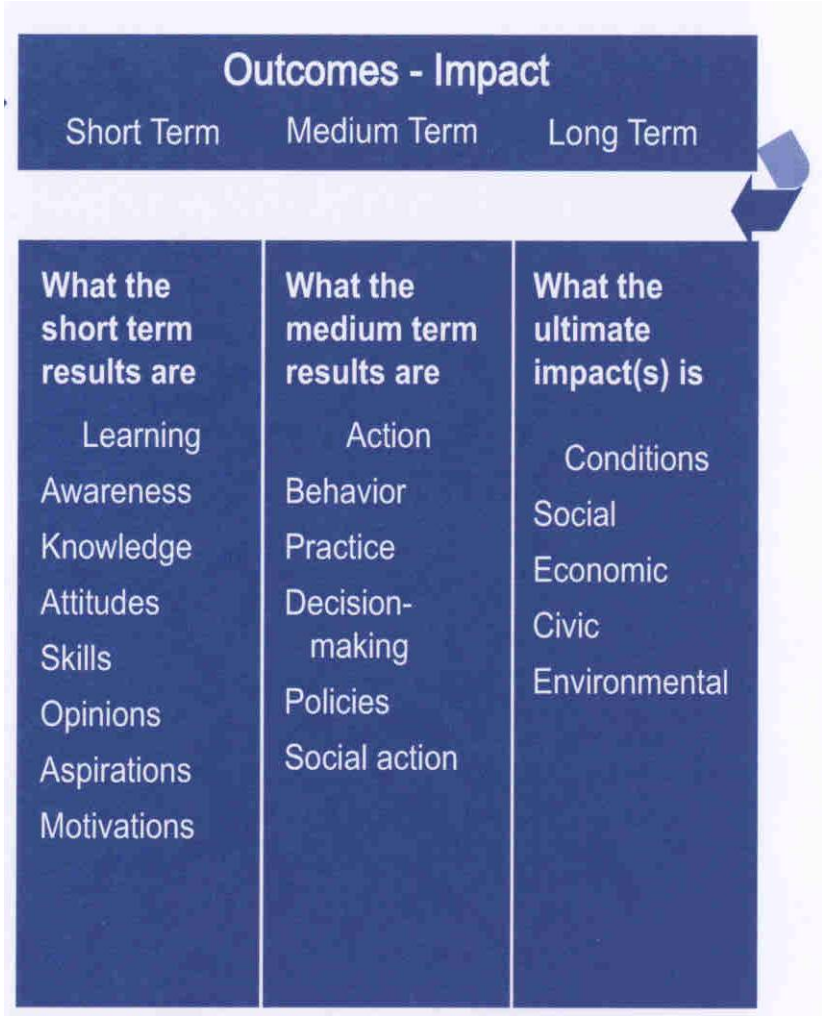
The act of ascertaining or fixing the value or worth of something

Program logic model



Extension University of Wisconsin-Extension Cooperative Extension Program Development & Evaluation © 2002
http://www.uwex.edu/ces/pdande/

Program logic model



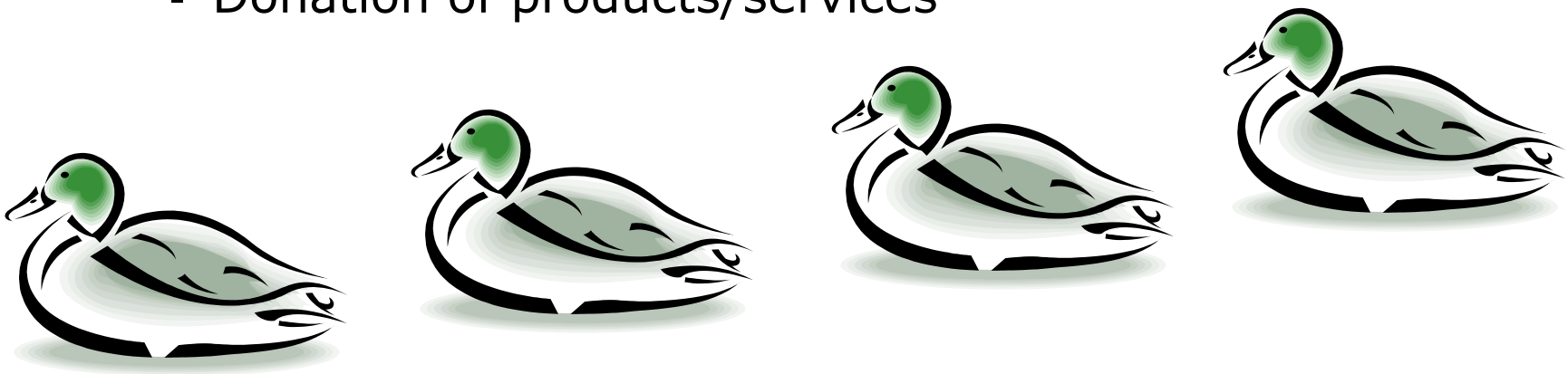
Introduction

A common sense approach and commitment to program evaluation is needed for successful impact assessment.

Step 1. Make the commitment

Step 2. Set up the appropriate mechanisms

- Support personnel
  - Project collaborators
  - Clerical staff
  - Volunteers
- Financial support
  - Office budget
  - Grants
  - Donation of products/services



Step 2. Set up the appropriate mechanisms

- Evaluative tools development
  - Educational event evaluations
  - Pre- and Post-tests
  - Follow up surveys
  - Evaluation cards
- Data management and reporting
  - Recordkeeping
  - Timelines and deadlines
  - Summarization of evaluations and surveys
  - Data analysis
  - Documentation

Step 3. Define the objectives of the program

- What is the issue, problem or need you are addressing, and what do you want to accomplish?
- What do you want people to learn?
  - Short term outcomes/impacts
- What changes in behavior do you want to occur?
  - Medium term outcomes/impacts
- What changes in social, economic, environmental or civic conditions do you hope will occur?
  - Long term outcomes/impacts

Step 4. Alert clientele of your intentions

- Advisory groups
- Participants
- Supervisors
- Decision makers

Step 5. Determine how learning will be measured

KASA changes (knowledge, attitudes, skills, and aspirations)

- Short term outcomes/impacts
- Evaluated when the interaction occurs with the client

Step 5. Determine how learning will be measured

Pre- and Post-test

1. By drawing a line from column A to column B, match the type of pesticide with their function in column B.

Column A	Column B
Biocides	Kill nematodes
Fungicides	Kill insects and other arthropods
Fumigants	Kill weeds
Herbicides	Kill slugs and snails
Microbials	Control algae in lakes, water tanks
Nematicides	Kill microorganisms
	Microorganisms that kill, inhibit or compete with pests
	Produce gas to kill pests in buildings or storage areas
	Kill fungi

2. What is Integrated Pest Management (IPM)?_____
_____
_____
_____

3. Which of the following substances are not classified as pesticides? (Circle all that apply)
   a. fertilizers
   b. bleach used as a disinfectant
   c. agricultural limestone
   d. drugs used to control parasites in animals
   e. antifouling agents
   f. all of these materials are pesticides

4. True of false: Pesticides from every major chemical class have been detected in ground water.

5. True or false: Organic agriculture is the production of food products without the use of pesticides.

D. Kluchinski, Rutgers Cooperative Extension, 1998.

Step 5. Determine how learning will be measured

Post-then-Pre-test

Directions: Read each of the statements and, in the left half of the table, rank yourself at the present time **after** participating in this training. NEXT, think back to your level of understanding about each statement **before** you participated in the training and rank your **before** level in the right half of the table. Circle the appropriate numbers using the following key:

1 = NO UNDERSTANDING
2 = LITTLE UNDERSTANDING
3 = MODERATE UNDERSTANDING
4 = QUITE A BIT OF UNDERSTANDING
5 = ALMOST COMPLETE UNDERSTANDING

How would you describe your understanding of the following:	MY UNDERSTANDING									
	After Training					Before Training				
	None	Little	Mod-erate	Quite a bit	Com-plete	None	Little	Mod-erate	Quite a bit	Com-plete
1. The role of citizen participation in public policymaking.	1	2	3	4	5	1	2	3	4	5
2. The difference between a private and a public issue.	1	2	3	4	5	1	2	3	4	5
3. The importance of public policy education in Extension programming.	1	2	3	4	5	1	2	3	4	5
4. Controversy as a normal part of public policy education programming.	1	2	3	4	5	1	2	3	4	5

R. L. Poling, University of Arkansas, 2005.

Step 5. Determine how learning will be measured

Client Evaluation Cards

- One-on-one client consultations

AGENT'S NAME:_____

Rutgers Cooperative Research & Extension
Client Consultation Evaluations

1. Where did the consultation occur?
   Field ☐ Office ☐ Phone ☐

2. Did you learn something new during this visit?
   Yes ☐ No ☐

3. Did this visit have value for you?
   Yes ☐ No ☐
   How would you rate it? (Circle one)
   1……..2……..3……..4……..5
   Poor Good Excellent

4. If possible, please estimate the potential value of this visit (i.e. saved money, improved skills, conserved resources, etc.) or give us your comment.

_____
_____
_____
_____

Signature: _____
Date: _____

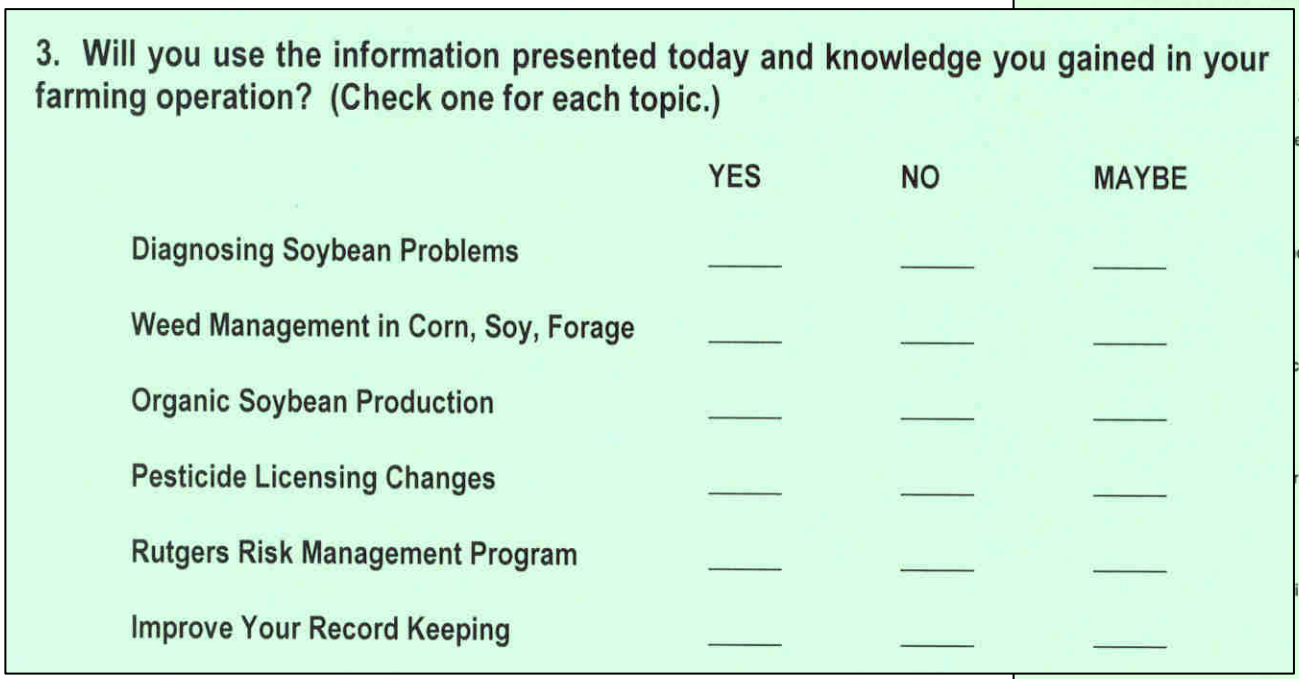
Your response is the best way we have of continuing and improving the service provided by Rutgers Cooperative Research & Extension to you. Individual comments are kept confidential and only used in summary form to help us improve. Thank you.

6795

B. Barbour, Rutgers Cooperative Extension.

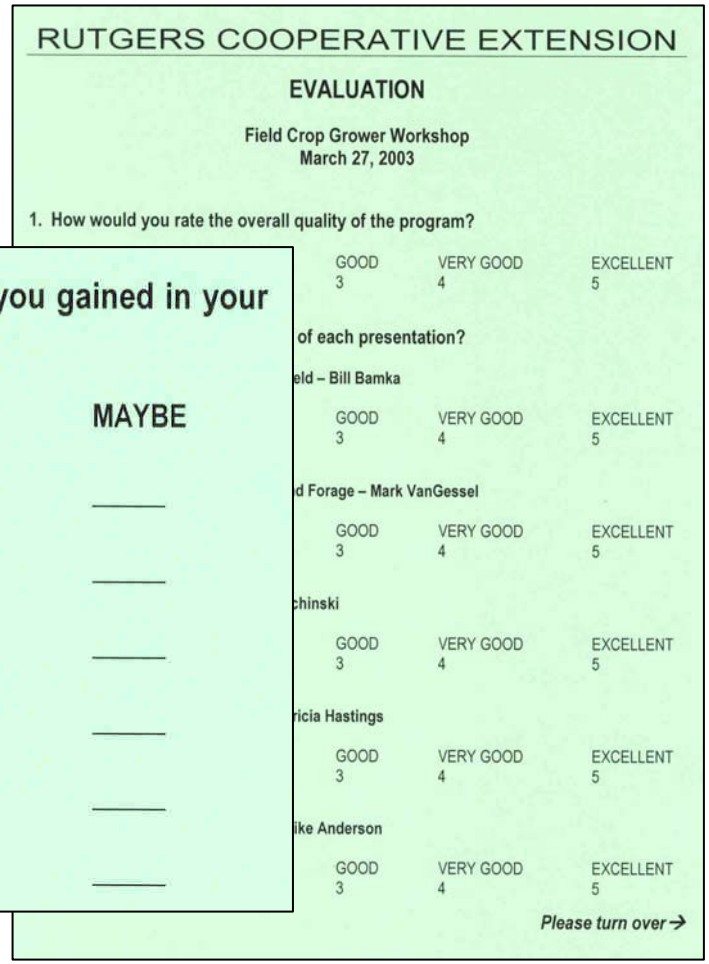
Step 5. Determine how learning will be measured

Educational Event Evaluations



3. Will you use the information presented today and knowledge you gained in your farming operation? (Check one for each topic.)

	YES	NO	MAYBE
Diagnosing Soybean Problems	____	____	____
Weed Management in Corn, Soy, Forage	____	____	____
Organic Soybean Production	____	____	____
Pesticide Licensing Changes	____	____	____
Rutgers Risk Management Program	____	____	____
Improve Your Record Keeping	____	____	____



RUTGERS COOPERATIVE EXTENSION

EVALUATION

Field Crop Grower Workshop
March 27, 2003

1. How would you rate the overall quality of the program?

GOOD 3 VERY GOOD 4 EXCELLENT 5

of each presentation?

eld – Bill Bamka

GOOD 3 VERY GOOD 4 EXCELLENT 5

d Forage – Mark VanGessel

GOOD 3 VERY GOOD 4 EXCELLENT 5

chinski

GOOD 3 VERY GOOD 4 EXCELLENT 5

ricia Hastings

GOOD 3 VERY GOOD 4 EXCELLENT 5

ike Anderson

GOOD 3 VERY GOOD 4 EXCELLENT 5

Please turn over →

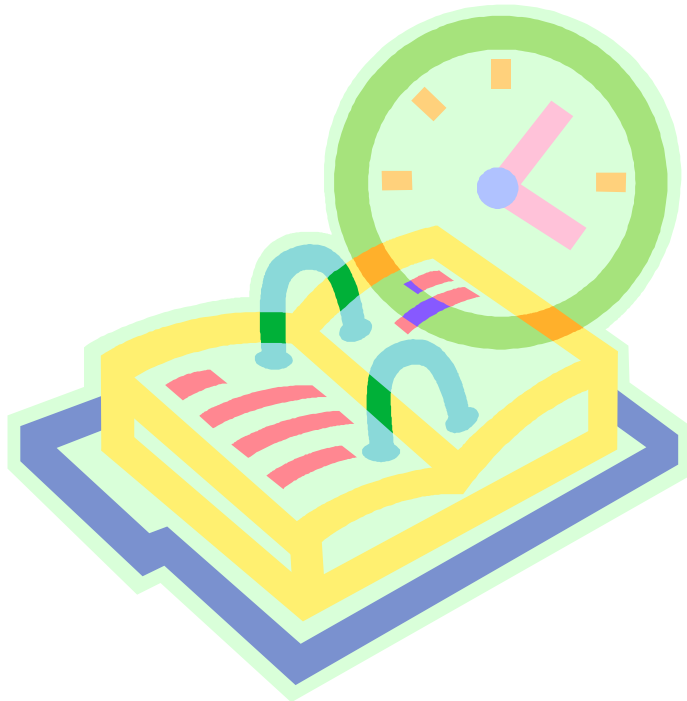
D. Kluchinski, Rutgers Cooperative Extension, 2003.

Step 6. Determine what changes in behavior or adoption will be evaluated; methods to use

- Medium term outcomes/impacts
  - changes in behavior
  - adoption of new practices
  - changes in decision making
  - changes in policies
  - social action

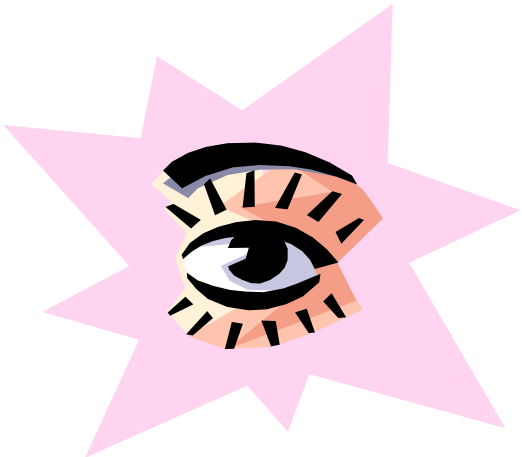
Step 6. Determine what changes in behavior or adoption will be evaluated; methods to use

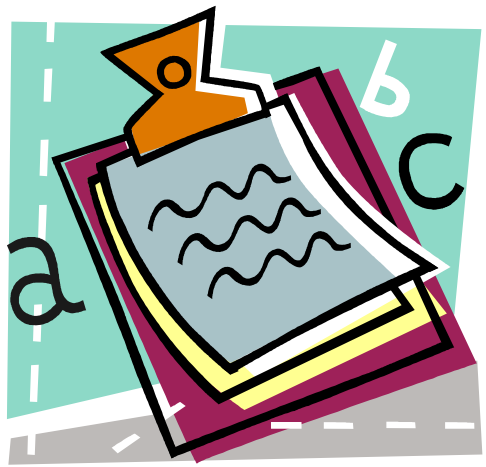
- A period of time must elapse before an evaluation can take place to allow for the client to adopt a new practice or behavior
- Planning and execution is essential!



Step 6. Determine what changes in behavior or adoption will be evaluated; methods to use

- The actual change in practice must be observed or self reported by the clientele

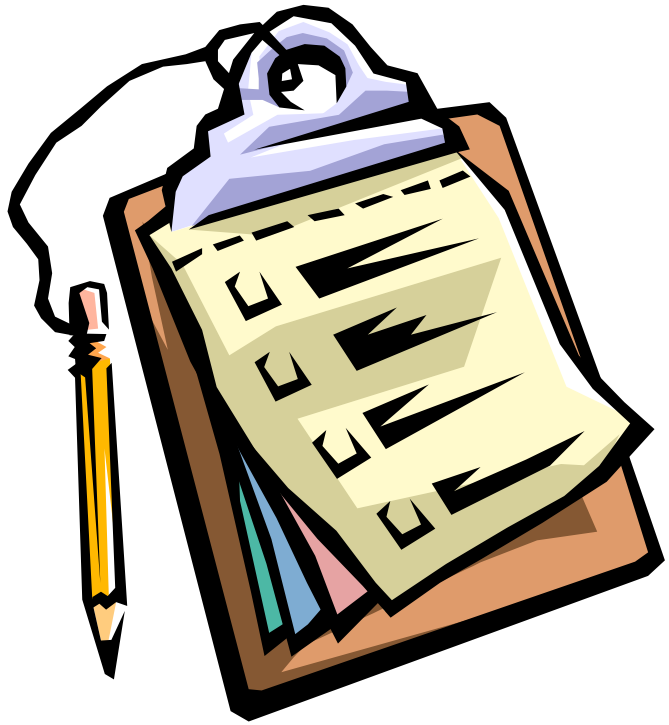




Step 7. Evaluate medium term outcomes

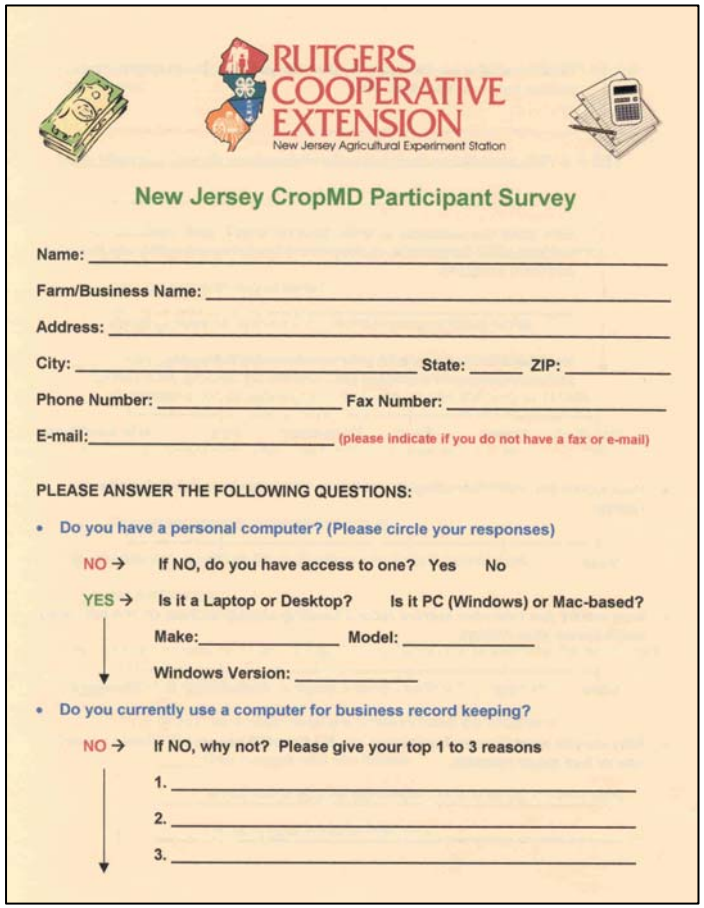
Direct Observation

- Observed adoption and use of
  - New practices
  - Techniques
  - Skills
  - Behaviors
  - Applications
- Learned by clientele directly involved with your program



Step 7. Evaluate medium term outcomes

Surveys



RUTGERS COOPERATIVE EXTENSION
New Jersey Agricultural Experiment Station

New Jersey CropMD Participant Survey

Name: _____

Farm/Business Name: _____

Address: _____

City: _____ State: _____ ZIP: _____

Phone Number: _____ Fax Number: _____

E-mail: _____ (please indicate if you do not have a fax or e-mail)

PLEASE ANSWER THE FOLLOWING QUESTIONS:

- Do you have a personal computer? (Please circle your responses)

  NO → If NO, do you have access to one? Yes No

  YES → Is it a Laptop or Desktop? Is it PC (Windows) or Mac-based?

  Make: _____ Model: _____

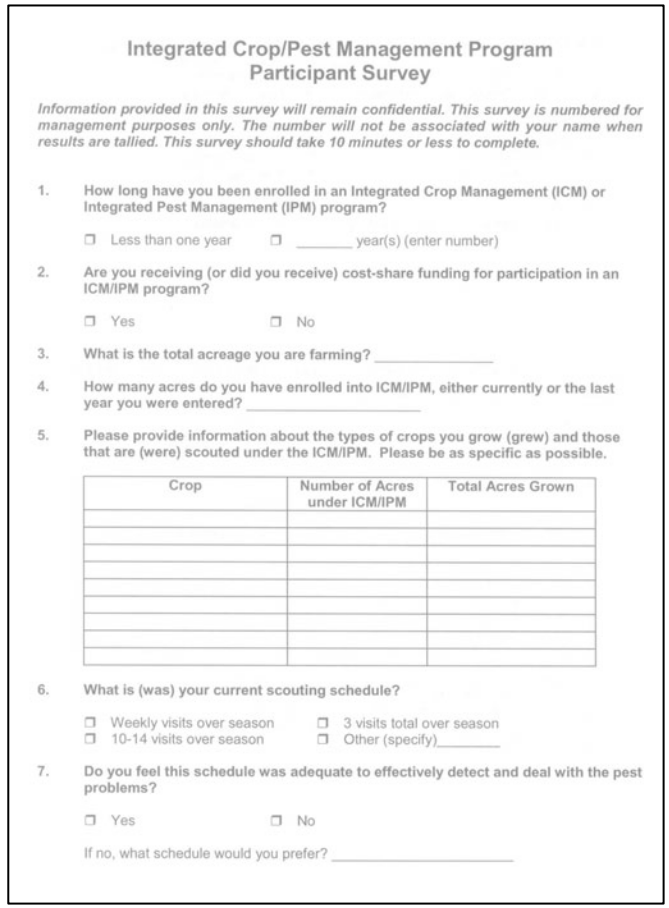
  Windows Version: _____

- Do you currently use a computer for business record keeping?

  NO → If NO, why not? Please give your top 1 to 3 reasons

  1. _____
  2. _____
  3. _____

D. Kluchinski, Rutgers Cooperative Extension, 2002.



Integrated Crop/Pest Management Program Participant Survey

Information provided in this survey will remain confidential. This survey is numbered for management purposes only. The number will not be associated with your name when results are tallied. This survey should take 10 minutes or less to complete.

1. How long have you been enrolled in an Integrated Crop Management (ICM) or Integrated Pest Management (IPM) program?

   ❒ Less than one year ❒ _____ year(s) (enter number)

2. Are you receiving (or did you receive) cost-share funding for participation in an ICM/IPM program?

   ❒ Yes ❒ No

3. What is the total acreage you are farming? _____

4. How many acres do you have enrolled into ICM/IPM, either currently or the last year you were entered? _____

5. Please provide information about the types of crops you grow (grew) and those that are (were) scouted under the ICM/IPM. Please be as specific as possible.

Crop	Number of Acres under ICM/IPM	Total Acres Grown

6. What is (was) your current scouting schedule?

   ❒ Weekly visits over season ❒ 3 visits total over season
   ❒ 10-14 visits over season ❒ Other (specify)_____

7. Do you feel this schedule was adequate to effectively detect and deal with the pest problems?

   ❒ Yes ❒ No

   If no, what schedule would you prefer? _____

D. Kluchinski, M. Brennan and T. Morgart, Rutgers Cooperative Extension, 2001.

Step 7. Evaluate medium term outcomes

- How would you rate your computer skills on the following scale (circle your rating):

|----------|----------|----------|----------|----------|
None Poor Fair Good Very Good Excellent

- How would you rate your current record keeping skills/practices on the following scale (circle your rating):

|----------|----------|----------|----------|----------|
None Poor Fair Good Very Good Excellent

- First survey administered to pre-registrants before the training series took place
- Follow up survey was conducted 6 months after completing the series

Step 7. Evaluate medium term outcomes

12. What has been the impact of the implementation of ICM/IPM practices on the following aspects of your farm operation?

First check (x) all that apply, then rate each item checked	Improved or increased	No effect	Declined or decreased
❒ profits	❒	❒	❒
❒ compliance with environmental regulations	❒	❒	❒
❒ pesticide management	❒	❒	❒
❒ fertilizer management	❒	❒	❒
❒ crop yield	❒	❒	❒
❒ crop quality	❒	❒	❒
❒ confidence in ICM as a valuable practice	❒	❒	❒

Step 8. Record, review and interpret findings

- Follow good scientific method
- Record the materials and methods you used
- Utilize good record keeping methods
- Analyze data with appropriate statistical methods
- Write up progress reports to track progress and inform others
- Ask for help!

Step 8. Record, review and interpret findings

Enhancing Computerized Record Keeping Skills

Field crop, forage and livestock producers were instructed on NJCropMD (New Jersey Crop Management Database). This Windows-based crop management record keeping and financial analysis program maintains a whole farm record of inputs, activities, and fertilizer and pesticide use.

Pre- and post-training evaluations of 41 participants trained in 2001-2002 were administered; after six months the following changes in skills and adoption were measured:

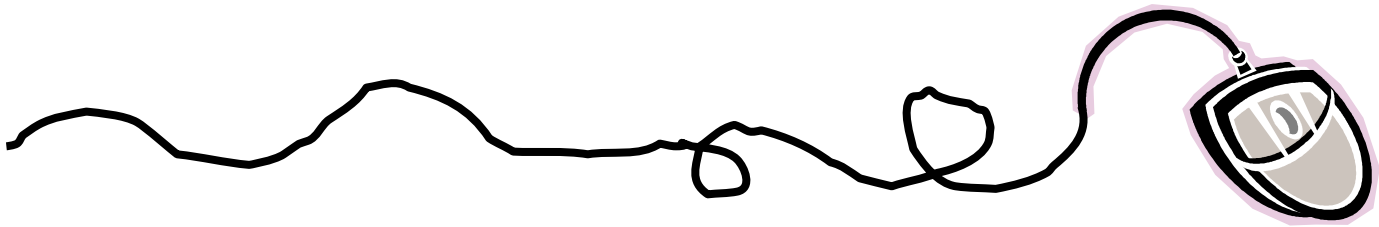
Computer skills:

- In pre-tests, 69% rated their computer skills as none to fair, and 31% as good to excellent.
- In post-tests, participant's ratings changed with 25% evaluating their skills as none to fair, and 75% as good to excellent.

Step 8. Record, review and interpret findings

Record keeping skills / practices:

- In pre-tests, 56% rated their record keeping skills as none to fair, and 42% as good to excellent.
- In post-tests, participant's ratings changed with 0% evaluating their skills as none to fair, and 100% as good to excellent.



Step 8. Record, review and interpret findings

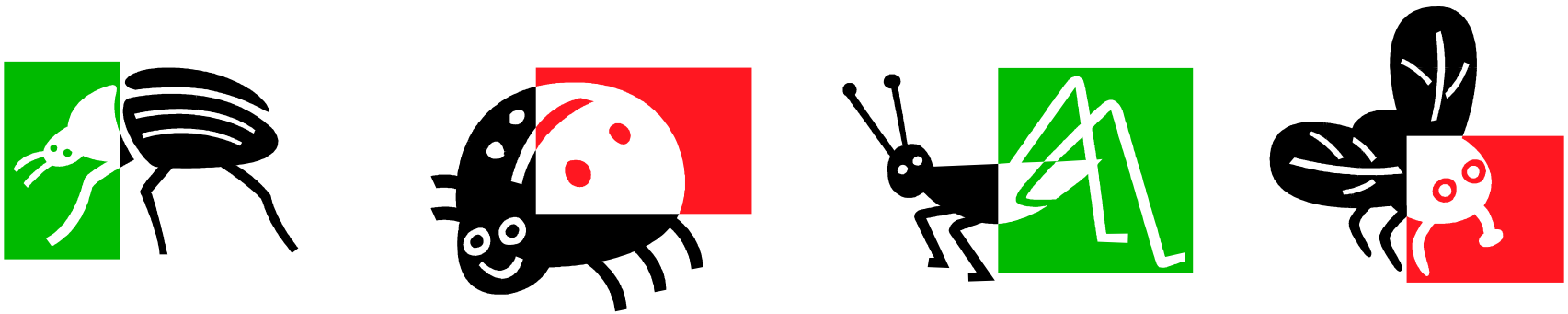
Impact of ICM/IPM Enrollment on Field and Forage Crop Producers

A mail survey of producers from northern New Jersey that were enrolled in ICM/IPM programs was conducted in 2001. The following impacts and adoption of improved practices occurred as a result of their participation:

- 77% indicated profits increased
- 39% felt their compliance with environmental regulations increased
- 80% stated they got better at managing pesticide use
- 92% improved fertilizer management
- 60% indicated that crop yields had increased

Step 8. Record, review and interpret findings

- 68% indicated improvements in crop quality
- 84% indicated increased confidence in the value of ICM/IPM techniques
- 92% indicated that they had received economic benefits from various adopted practices
  - 81% of those said this was sufficient enough to motivate them to continue using ICM/IPM practices.



Step 9. Make mid-stream corrections

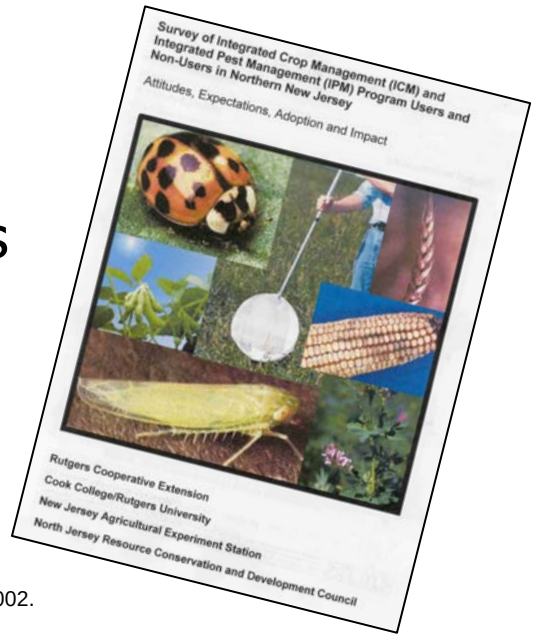
Re-evaluate your program periodically

- What worked or didn't work?
- What can be improved or changed?
- Are the objectives still relevant?
- Has the intended audience been involved?
- Have the process and results to date altered our plan or opened up new opportunities?
- When do we declare success and move on?

Step 10. Report the impact of your program

Document your activities, efforts, and impacts. The documentation should include:

- Program description and objectives
- Inputs and outputs (activities and participants)
- Evaluation instruments and methodologies
- Summary of the survey results
- Interpretation of the results
- Conclusions and recommendations



D. Kluchinski, M. Brennan, D. Drewes, and T. Morgart. Rutgers Cooperative Extension, 2002.

Step 10. Report the impact of your program

Share your progress and findings with supervisors, decision makers, clientele and peers via:

- Newsletters, blogs, web pages
- Media releases - radio, TV, newspapers
- Reports
- Fact sheets
- Teaching materials (slide sets, videos)
- Abstracts, proceedings papers
- Professional presentations
- Journal articles
- Award and recognition programs

Additional resources

K. Diem. 2002. A Step-By-Step Guide to Developing Effective Questionnaires and Survey Procedures for Program Evaluation and Research. FS995. Rutgers Cooperative Extension, 6 pp.

K. Diem. 2002. Measuring Impact of Educational Programs. FS869. Rutgers Cooperative Extension, 4 pp.

Rutgers Cooperative Extension Program Evaluation Resources
http://njaes.rutgers.edu/evaluation/

R. L. Poling. 2005. Evaluation of Extension Programs. University of Arkansas Cooperative Extension Service. 23 pp.

R. L. Poling. 2005. Example Extension Program Evaluation Tools. University of Arkansas Cooperative Extension Service. 24 pp.

RUTGERS
THE STATE UNIVERSITY OF NEW JERSEY

Ten Easy Steps to Program Impact Evaluation

Daniel Kluchinski
kluchinski@rce.rutgers.edu
Rutgers Cooperative Extension
88 Lipman Drive, New Brunswick, NJ 08901-8525 USA

NEW JERSEY AGRICULTURAL EXPERIMENT STATION
RUTGERS COOPERATIVE EXTENSION