Field Assessment for Water Resource Protection



Curriculum Guide

Created by
Brent Ladd, Water Quality Specialist
Jane Frankenberger, Associate Professor
Agricultural & Biological Engineering Department





Acknowledgements

Acknowledgement is made to the following individuals who provided valuable input for the development of the Purdue Extension publication, *Field Assessment for Water Resource Protection*.

Tony Bailey, Sylvie Brouder, Brett Canaday, Michele Conyer, John Doran, Ken Eck, Mark Evans, Dana Goodman, John Graveel, Allen Haynes, William Johnson, Jim Lake, Jim Luzar, Matt Marrs, Gene Matzat, Cliff Sadoff, Gary Steinhardt, Kim Winninger, and Fred Whitford.

Ideas for this curriculum format came from the *Do's and Don'ts at the Gas Pump* curriculum by Cathy Burkett, Rush County Extension Educator.

Table of Contents

Objectives of this Curriculum Guide	3
Program Options	3
Program Outline	4
Teaching Preparation	5
Objectives	
Teaching Checklist	
Materials and Equipment Checklist	
Presenting the Program	5
PowerPoint Notes Pages	
Summary of Video	

It is the policy of the Purdue University Cooperative Extension Service, David C. Petritz, Director, that all persons shall have equal opportunity and access to its programs and facilities without regard to race, color, sex, religion, national origin, age, marital status, parental status, sexual orientation, or disability. Purdue University is an Affirmative Action employer. This material may be available in alternative formats.

1-888-EXT-INFO

http://www.ces.purdue.edu/extmedia

Objectives of this Curriculum Guide

To provide an organized outline of presentation options, objectives, and materials that can be used in teaching student and adult audiences the process of conducting an environmental assessment of agricultural field practices.

To assist educators and agricultural professionals in serving the needs of farmers to assess field practices and in promoting water quality protection with best management practices.

Program Options

The PowerPoint presentations and additional handouts are available on the web site: http://www.ces.purdue.edu/waterquality, then click on the Field Assessment link. Teachers, please note that the subject of environmental assessment of agricultural practices can be taught in-depth over two or more weeks, culminating in on-farm field experiences. The program options presented here are for a one-time event.

50 – 60 minutes

Pre-program survey	5 minutes
PowerPoint presentation	10 minutes
Group exercise	20-25 minutes
Continue PowerPoint presentation	5 minutes
Question-and-answer period	5-10 minutes
Post-program survey	5 minutes

20 – 30 minutes

(for groups such as Breakfast Club, Optimists, Kiwanis, etc.)

PowerPoint presentation	
(don't do group exercise)	15-20 minutes
Questions and answers	5-10 minutes

Program Outline

I. Program opening

- A. Introduce yourself and your agency
- B. Conduct the pre-program survey (You can download the pre/post evaluation file from the Web site.)

II. PowerPoint presentation

(Use the notes page that accompanies each PowerPoint slide for your presentation. You can download the PowerPoint presentation from the Web site.)

- 1. Storyline to introduce the topic
- 2. Storyline to introduce the topic
- 3. Introduction of the topic
- 4. What is a field assessment?
- 5. Uses a streamlined method
- 6. Answering the 'quick check' questions
- 7. Recommendations for questions marked "No" or "Don't Know"
- 8. Writing an action plan

Conduct the Group Exercise* (slides 9-11)

- 12. Implement the action plan
- 13. Monitor changes in the soil
- 14. How to obtain materials
- 15. Field assessment summary

III. Question-and-answer period

- IV. Post-program survey
- V. Distribute any additional information, flyers, and publications

*For a Constructive Group Exercise:

Use the Extension publication "Field Assessment for Water Resource Protection (WQ-42)" along with the one-page handout titled "Background Information for Field Assessment Example" and copies of the assessment quick check.

- 1. Form five small groups, one for each main topic area found in Field Assessment publication.
- 2. Using the handout with background information and map and copies of the, "Field Assessment Quick Check" answer the questions in the quick check.
- 3. Attempt to find weak areas of the field management.
- 4. Each small group reports back to the entire group with recommendations for improving the field management practices for this example.
- 5. If time allows, ask each group how they would consider implementing their recommendations.

Teaching Preparation

Objectives

Participants will learn how to use the Field Assessment publication to conduct their own on-farm assessment for management of nutrients, soils, pests, drainage & irrigation, and areas adjacent to fields.

Participants will learn that the Field Assessment method is streamlined, farmer driven, and confidential.

Participants will learn about water quality materials and contacts that Purdue Extension provides to help them implement better water quality protection measures.

Teaching Checklist			
If you are presenting a public presentation, send out a news release at least two			
weeks before the program.			
Make arrangements for the meeting room and room set-up			
Make overhead transparencies, if needed in place of PowerPoint slides.			
Read lesson and prepare			
Copy the handouts and pre/post surveys for participants			
Materials and Equipment Checklist			
Overhead projector and screen or LCD projector, laptop, and PowerPoint file (you			
can download the PowerPoint file from the Web site).			
Overhead transparencies if needed			
Handouts for each participant (these are available from the Web site)			
1. Publication (available in quantities from Brent Ladd, 765-496-6331)			
2.Exercise handout with field map and background information			
3. The two page field assessment quick check			
Pre/post surveys for each participant (you can download this from the Web site)			

Presenting the Program

PowerPoint Notes Pages

You may find it helpful to print out the slides with the notes page that accompanies each slide. The notes give information about each slide. Simply select the printing option that includes the notes pages.

Please mail pre- and post-evaluation surveys to:

Brent Ladd, Water Quality Specialist 225 S. University St. Agricultural & Biological Engineering Department Purdue University West Lafayette, IN 47907