

USDA-NRCS
Proficiency Areas and Performance Objectives
for Pest Management
for
Certified Crop Advisers (CCAs)
Certified Professional Agronomists (CPAg)
Who Want To Be
Technical Service Providers (TSP)
for
USDA-NRCS

Note: You must show your certification card.
NRCS will verify your certification status

December 2006

INTRODUCTION

Providing clear guidance to Technical Service Providers (TSP's) for their role in protecting natural resources is one duty of the Natural Resources Conservation Service. The TSP's provide vital service to the producer, and must be competent in all phases of pest management. Because there are many components of pest management, it is imperative that the necessary knowledge and skills be clearly stated in an easily located and understood document.

Listed below are the Proficiency Areas that outline the subject matter areas of Pest Management. Within each Proficiency Area are specific, measurable objectives the TSP must perform in order to demonstrate proficiency in Pest Management.

Instructions:

CCA/CPAg:

- You must read each area and check the box next to each Proficiency Area if you agree that you can satisfactorily complete each objective listed under the proficiency area.
- At the end of the document you must sign your name and provide your certification number. Signing your name indicates that you are able to satisfactorily complete each of the proficiencies.
- You will be required to perform one pest management plan for an existing grower that will be reviewed by NRCS personnel.
- If your plan meets the NRCS standards you will be certified as a technical service pest management planner for NRCS.
- If the plan does not meet NRCS standards, the necessary corrections or edits will be identified in writing and you will be requested to revise the plan and resubmit to NRCS. In addition you will also submit a second plan for a different farm that will be reviewed. If the second plan also meets the NRCS pest management plan standards then you will be certified.
- If the second plan submitted does not meet the NRCS pest management plan standard, the certification office will be notified and the applicant will be advised to register for and successfully complete modules 1-7 of the Pest track of the NRCS course – Nutrient and Pest Management Considerations in Conservation Planning.
- Please do not sign this document if you do not feel confident that you can complete all proficiencies. Signing and not performing to the standard may be considered a violation of the code of ethics. Seek training first if necessary.

Read each area and check the box only if you can perform the standards listed.

PROFICIENCY AREAS AND PERFORMANCE OBJECTIVES for PEST MANAGEMENT

PROFICIENCY AREA 1. Introduction to Pest Management

1. List NRCS roles and responsibilities in pest management planning as described in the following documents:

- a. NRCS General Manual Title 190, Part 404
 - b. Pest Management Standards 595
2. List the five components of an NRCS pest management plan
3. Define the following terms as used by the NRCS in policy documents:
 - a. mitigation
 - b. structural, cultural, and management conservation practices
 - c. management techniques
 - d. SWAPA+H resource concerns
4. Within the following sections of eFOTG, locate information that applies to pest management:
 - a. Section I — General References
 - b. Section II — Soil and Site Information
 - c. Section III — Conservation Management Systems/Quality Criteria
 - d. Section IV — Practice Standards and Specifications
 - e. Section V — Conservation Effects
5. List the planning steps of the NRCS National Planning Procedures Handbook (NPPH) that apply to pest management

☐ PROFICIENCY AREA 2. The Science of Pest Management

1. Explain how pesticides move in the environment
2. List factors that affect pesticide persistence and mobility in the soil
3. Explain the three processes that determine pollutant delivery
4. Explain the importance of long-term pesticide tolerance thresholds for humans and fish
5. Distinguish long-term and short-term water quality thresholds
6. Define the following terms for long-term water quality thresholds
 - a. Health Advisory (HA)
 - b. Maximum Contaminant Level (MCL)
 - c. Maximum Acceptable Toxicant Concentration (MATC)
 - d. Chronic Human Carcinogenic Level (CHCL)
 - e. Hazard Quotient (HQ)

☐ PROFICIENCY AREA 3. Integrated Pest Management

1. Define Integrated Pest Management (IPM)
2. Explain how prevention, avoidance, monitoring, and suppression (PAMS) are used in IPM
3. Define pest resistance, resurgence, and replacement
4. Locate crop-specific or use-specific IPM strategies for your state or region

5. Describe pest monitoring techniques
6. Describe the roles of water management and nutrient management in pest management
7. Define economic injury level (EIL) and economic threshold (ET)
8. Compare and contrast how cultural, biological, and chemical pest control methods impact resource concerns
9. Describe how plant resistance, natural biological control, and crop rotation are used in pest management
10. Describe TSP responsibilities in incorporating IPM into conservation plans
11. Use IPM to develop a pest management plan
12. Document collaboration with IPM specialists when developing a strategy to reduce environmental risk

PROFICIENCY AREA 4. Field/Management Area/Watershed Characterization

1. Use the Resource Concerns checklist to document pest management resource concerns for a field/management area/watershed
2. Locate soils information for a field/management area/watershed
3. Identify components of a soils map that affect pest management
4. Determine which soils to use for environmental risk analysis of a field/management area/watershed
5. List target pests for a given field/management area/watershed
6. Identify practices that reduce risk of off-site impacts of pest management decisions

PROFICIENCY AREA 5. Influence of Climate and Water Management on Environmental Risk Analysis

1. Use water and climate information to assess risk and analyze treatment alternatives
2. Incorporate climatic and water management factors into a 595 Pest Management component of a conservation plan

PROFICIENCY AREA 6. Decision Making

1. Define pest management risk analysis
2. Select tools to use to determine environmental risk
3. Develop a plan that meets or exceeds resource concerns quality criteria

4. Use risk analysis tools to determine the suitability of non-chemical pest management alternatives
5. Interpret the output of non-pesticide risk analysis tools
6. Recommend mitigation techniques to reduce the risk of non-pesticide pest management alternatives as specified in state eFOTG criteria
7. Evaluate a pest management recommendation to determine appropriate risk analysis tools to use
8. Based on land use, evaluate erosion and soil condition impacts of non-chemical pest management recommendations using the following tools:
 - a. RUSLE II
 - b. WEQ
 - c. Soil Condition Index (SCI)

☐ PROFICIENCY AREA 7. Using WIN-PST

1. Use WIN-PST to determine the potential for off-site hazard caused by pesticide movement
2. Explain the difference between WIN-PST soil/pesticide interaction loss potential ratings and WIN-PST hazard ratings
3. List soil parameter values in WIN-PST
4. Identify soil parameter values in WIN-PST that the user can modify
5. Interpret WIN-PST reports
6. Identify hazard ratings on a WIN-PST interaction report that require mitigation
7. Use WIN-PST hazard ratings to determine when mitigation is required
8. Use WIN-PST to determine long-term pesticide thresholds

☐ PROFICIENCY AREA 8. Implementing a Pest Management Plan

1. Complete a narrative for the producer that explains risk analysis and mitigation
2. Develop a pest management operation and maintenance plan and review with the producer
3. Evaluate the pest management plan for potential conflict with other components of the conservation plan
4. Assure that the pest management plan meets or exceeds quality criteria as outlined in Section III of eFOTG

I, the undersigned CCA/CPAg, have read and fully understand each of the proficiency areas listed in this document. I can perform the proficiencies and their objectives necessary to meet NRCS procedures and assist the producer in meeting the criteria in the conservation practice standard. I will develop and deliver to NRCS staff for review one pest management plan for an existing grower. I also understand that if I do not perform to the stated standard, my certification request will be referred to the certification office and I will be required to successfully complete modules 1-7 of the Pest Track of the NRCS Course, Nutrient and Pest Management Considerations in Conservation Planning prior to reapplication.

Print Name

Sign Name

Certification Number

Date

Note: Please do not sign this document if you can not perform the proficiencies and their objectives. Instead, seek the appropriate training prior to completing this form. NRCS TSP Pest Management training will be listed on the CCA Web site: www.certifiedcropadviser.org and the CPAg Web site: www.agronomy.org/certification.