NRCS
Pest Management

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NRCS Pest Management Policy

General Manual

Title 190 – Ecological Sciences

Part 404 – Pest Management

NRCS Roles in Pest Mgt.
(404.10 Pest Mgt. & Technical Assist.)

1. Evaluate environmental risk associated with a clients probable pest suppression strategies.
2. Provide technical assistance to clients to mitigate the identified environmental risk of pest suppression strategies through mitigation practices and activities.

NRCS Roles in Pest Mgt. (cont.)

3. Assist clients to adopt IPM techniques that protect natural resources.
4. Assist clients to:
   i. Inventory, assess and suppress noxious and invasive weeds on non-cropland.
   ii. Suppress weeds to ensure successful implementation and/or maintenance of permanent vegetative conservation practices.

1. Evaluate environmental risk associated with a clients probable pest suppression strategies.

404.32 Pest Management Environmental Risk Analysis

F. The risk of environmental degradation by other pest management methods and management techniques (e.g., tillage, burning, biological predation, etc.) must also be assessed with appropriate analysis tools, such as the current NRCS-approved erosion prediction technologies (see GM-450, Part 402, Subparts A and B).

2. Provide technical assistance to clients to mitigate the identified environmental risk of pest suppression strategies through mitigation practices and activities.

- Mitigation guide associated with the current state standard.
- Mitigation guide associated with the new national standard and technical note.

3. Assist clients to adopt IPM techniques that protect natural resources.

- Mitigation guide associated with the current state standard.
- Mitigation guide associated with the new national standard and technical note.
- University IPM Guidelines and publications.
- Also, our own standards like Hedgerow Planting, Conservation Cover, Conservation Crop Rotation, Cover Crop, Field Borders, Mulching, etc.

4. Assist clients to:

i. Inventory, assess and suppress noxious and invasive weeds on non-cropland.

- University publications.
- This is mainly to bring practices such as Brush Management and Herbaceous Weed Management under the umbrella of the Pest Management Policy.

4. Assist clients to:

ii. Suppress weeds to ensure successful implementation and/or maintenance of permanent vegetative conservation practices.

- University publications.
- This is mainly to allow NRCS to reference publications that detail weed management for practices such as Conservation Cover, Filter Strip, Field Border, etc. so that successful stands are established and are not overrun by weeds because of improper site preparation or vegetation management.

NRCS
NEW Integrated Pest Management Practice (595)

IPM in NRCS

- **NRCS utilizes IPM technology to:**
  - **Prevent or mitigate the environmental risks of pest management activities – not to control pests.**
    - **Pest Management (Code 595)**
      - **Enhance crop quantity and quality (not our job)**
      - **Minimize the negative impacts of pest management on natural resources (yes!)**

    Being replaced by:

    - ***Integrated Pest Management (Code 595)***
      - **Its only purpose is to prevent or mitigate the environmental risks of pest management activities**

Conservation Planning

- In the conservation planning process, Planners identify site-specific natural resource concerns (S-W-A-P-A+H) related to pest management activities:
  - Water Quality impacts from leaching, solution runoff and adsorbed runoff of pesticides.
  - Air Quality impacts from drift and volatization of pesticides.
  - Direct pesticide impacts on pollinators and other beneficial species in or near the application area.
  - Cultural pest suppression risks including erosion/sedimentation from cultivation for weed control and air quality impacts from burning.

Pesticides and IPM

- EPA carefully regulates pesticide uses nationally:
  - Mitigation requirements may be on the pesticide label;
  - However, significant risks may still occur based on site-specific conditions.
- In contrast, NRCS starts at the field level and first identifies site-specific natural resource concerns.
  - For example, to evaluate water quality concerns:
    - Is groundwater or surface water the concern?
    - What are the waterbody characteristics?
    - What are the watershed characteristics?
    - What is the flow path to the waterbody?
      - Vadose zone characteristics for groundwater
      - Overland flow characteristics for surface water
    - What are the characteristics of the field?

Pesticides and IPM

- Water quality concerns are site-specific and often apply to sediment and nutrients as well as pesticides.
- Some sites require careful management to adequately protect sensitive natural resources from pesticides.
- Other sites require nothing more than “follow the label”.
- We can help producers understand how pesticide label mitigation requirements apply to their site.
- We must integrate pesticide label mitigation requirements into the overall conservation plan and each conservation practice applied - “the label is the law”.

IPM (Practice 595)

- **Definition**
  - A site-specific combination of pest prevention, pest avoidance, pest monitoring, and pest suppression strategies.
- **Purpose**
  - Prevent or mitigate pest management risks to natural resources, including:
    - Offsite pesticide risks in water and air;
    - Direct pesticide impacts on pollinators and other beneficial species;
    - Risks from cultural techniques including tillage and burning.
- **Criteria**
  - An IPM plan will be developed with specific techniques that will be utilized to prevent or mitigate risks to natural resources.

IPM (Practice 595)

- **Criteria**
  - IPM guidelines from the local Land Grant University or Extension will be utilized where available: www.ipmcenters.org/ipmelements/index.cfm
  - In the "real world" of IPM, there are often many pests, and some have lots of good IPM information including specific thresholds, and some have very little information. For preventing risks, a full IPM system that utilizes all available information is preferable. IPM guidelines are a great reference for what IPM is available for a particular crop as are the IPM Centers' Crop Profiles: http://www.ipmcenters.org/CropProfiles/

IPM (Practice 595)

- **Criteria**
  - Mitigating a specific risk with IPM can get into pesticide selection and pesticide application details, so it's often best to handle these situations "live" with an Extension expert or crop consultant.
  - 595 prescribes minimum mitigation levels for water quality resource concerns based on WIN-PST Soil/Pesticide Interaction Hazard Ratings:
    - Low or Very Low - No Mitigation Needed
    - Intermediate - 20 points
    - High - 40 points
    - Extra High - 60 points

IPM (Practice 595)

- **Criteria**
  - Mitigation credit for IPM techniques applied is combined with mitigation credit for other conservation practices applied to meet the minimum criteria.
- **Plans and Specifications**
  - Plan Map and Soils Map
  - Environmental Risk Interpretations
  - Appropriate Mitigation Techniques
  - Prevention and Avoidance Techniques
  - Scouting Plan and Thresholds

IPM (Practice 595)

- **Recordkeeping**
  - Monitoring or Scouting Results
  - When and Where Suppression was Implemented
  - When and Where Special IPM Techniques were Implemented to Mitigate Site-specific Risks

  Note that a full IPM system is preferred (PAMS), especially for preventing environmental risks, but the minimum requirements of the new 595 will be met when identified natural resource concerns are adequately mitigated. In a limited number of cases, even just one IPM technique may be adequate for mitigation, but more IPM is always better.

NRCS IPM

- **New Agronomy Technical Note Will Be Issued.**
  - Describes how to implement the new 595 standard.
  - Rates the leaching, solution runoff, adsorbed runoff, and drift mitigation potential for IPM techniques and other conservation practices (similar to the old 595 mitigation matrix).
  - Includes mitigation information for pesticide volatilization and for direct pesticide impacts on pollinators and other beneficial species.
- **Other Conservation Practices**
  - As they are revised, we will try to include more detailed information on mitigating pesticide risks.

Summary of Pesticide Risk Mitigation

- IPM techniques are documented with the application of the new IPM practice standard. The required mitigation credits can come from IPM techniques like only applying an insecticide based on monitoring that indicated an economic pest threshold has been exceeded.

- Mitigation credits can also come from other conservation practices like a Filter Strip installed between the field and the stream. These practices are documented as part of the conservation plan, not the NRCS IPM practice.