

Integrated Pest Management Plan Criteria Practice/Activity Code (114) (No.)

1. Definition:

Integrated Pest Management (IPM) is an ecosystem-based strategy that is a sustainable approach to manage pests using a combination of techniques such as chemical tools biological control, habitat manipulation, and modification of cultural practices and use of resistant varieties. Methods of chemical applications are selected in a manner that minimizes risks to human health, beneficial and non-target organisms, and the environment. Integrated Pest Management:

- Manages pests economically;
- Minimizes the risk associated with pest suppression;
- Produces quality commodities;
- Meets NRCS quality criteria for soil, water, air and plant quality;
- Complies with federal, state, tribal, and local laws, regulations and permit requirements;
- Addresses operator's objectives

2. IPM Plan Criteria

This section establishes the minimum criteria to be addressed in the development and implementation of Integrated Pest Management Plans.

A. General Criteria

1. An Integrated Pest Management Plan shall be developed by certified Technical Service Providers (TSPs). In accordance with Section 1240 (A), the Environmental Quality Incentive Program (EQIP) program provides funding support through contracts with eligible producers to obtain services of certified TSPs for development of Integrated Pest Management Plans. The specific TSP criteria required for Integrated Pest Management Plan development is located on the TSP registry (TechReg) web site at: <http://techreg.usda.gov/>

B. The planner shall address the following items during the IPM Conservation Plan development process:

- 1) Background and site information;
- 2) Site specific assessment of environmental risk associated with existing and alternative pest suppression system
- 3) Monitoring guidelines;
- 4) State University's IPM guidelines for specific crops (optional)
- 5) Record Keeping
- 6) Conservation plan (record of decisions) to address the identified environmental risks associated with pest suppression activities with implementation specifications and other resource concerns.

7) References, if needed.

C. IPM Specific Element Criteria

Each of the IPM elements will address the specific criteria below. The degree to which these criteria are addressed in the development of a site-specific IPM plan is determined by the General Criteria and the specific criteria provided for each element of the IPM plan below.

1. **Background and Site Information.** This element provides a brief description of:
 - a) Name of owner/operator;
 - b) Tract and field(s) location;
 - c) Soil map units;
 - d) Resource concerns;
 - e) Present site use and general management being applied;
 - f) History of pest management activities
2. **Site Specific Assessment of Environmental Risks Associated with Existing and Alternative Pest Management System.** This element provides a brief description and maps including:
 - a) Conservation Plan Map;
 - b) Field locations of planned areas;
 - c) Soil type and characteristics; note potential for runoff or permeability;
 - d) Site conditions risk description;
 - e) Identification of pests, crop, plant community condition and degree of infestation;
 - f) Irrigation system and management (where appropriate);
 - g) Locations of sensitive resource areas identified on the plan map to include:
 - h) Streams, drains, surface waters, wetlands, wells, groundwater, drains, grassed waterways and existing buffer practices;
 - i) Sensitive wildlife habitat (on and off-site), food plots;
 - j) Potential off-target drift areas;
 - k) Identification of beneficial predators and parasites;
 - l) Consideration for pollinator habitat and pollinator protection;
 - m) Other risk mitigation practices in use.
3. **Monitoring Guidelines:** This element addresses monitoring strategies that utilize damage and economic thresholds to prevent pest resistance and

potential harmful effects on human health and the environment. The monitoring should include:

- a) List of crops to be maintained
 - b) Scouting for insects (both beneficial and pest), disease, weeds with dates and results;
 - c) Soil test results;
 - d) Weather forecasting;
 - e) Degree-day prediction of pest life cycle events;
 - f) Other methods of monitoring and results, such as pheromone traps
4. **State University IPM guidelines for specific crops.** This element addresses individual State University Year Round Integrated Pest Management Programs to be utilized by planners:
- a) Where available use State Agricultural University issued crop specific Integrated Pest Management guidance for individual crops that indicate activities to be undertaken throughout the year based on the crop production cycle. For example; monitoring may be prescribed for a particular pest or pests during pre-plant, pre-emergence, rapid growth, dormancy, bud-break, bloom, fruit set, maturation, harvesting, postharvest and storage periods;
 - b) Where available, use State Agricultural University issued Integrated Pest Management guidance for individual crops, pests and diseases. These differ from year round programs in that they may only refer to management of a single pest
 - c) Note: There are non-state university organization that likewise provide credible guidelines (e.g., Rodale Institute, Kutztown, PA)
5. **Recordkeeping.** This element addresses list of records that shall be maintained detailing:
- a) Date of monitoring;
 - b) Results of monitoring;
 - c) Identification of both vertebrate and invertebrate pests;
 - d) Identification of beneficial insects enlisted;
 - e) Identification of specific raptors and/or bats enlisted;
 - f) Identification of crop and/or plant community condition;
 - g) Threshold of infestation;
 - h) Strategies implemented with dates;
 - i) All required records required by state and federal requirements;
 - j) Records required or needed as part of the State University IPM guidelines being used

6. **Conservation plan** (record of decisions) (*Utilizing Customer Service Toolkit – Plug-In or MsWord Document*) to address the identified environmental risks associated with pest suppression activities with implementation specifications and other resource concerns. The record of decisions shall include the planned practice(s), schedule for implementation, and site specific specifications to apply the conservation practice. The site specific specifications for the non-engineering type practices can be on an NRCS Jobsheet available for the conservation practice or in a narrative form in a document. Planned engineering type practices shall include the conservation practice, schedule of implementation, and identified on the plan map. The plan may include, but are not limited to the conservation practices listed below:

- a) Brush Management (314)
- b) Conservation Crop Rotation (328)
- c) Cover Crop (340)
- d) Conservation Cover (327)
- e) Early Successional Habitat Development/Management (647)
- f) Field Border (386)
- g) Filter Strip (393)
- h) Forest Stand Improvement (666)
- i) Hedgerow Planting (422)
- j) Herbaceous Weed Control (315)
- k) Irrigation System, Microirrigation (441)
- l) Irrigation Water Management (449)
- m) Land Smoothing (466)
- n) Mulching (484)
- o) Nutrient Management (590)
- p) Pasture and Hayland Planting (512)
- q) Prescribed Grazing (528)
- r) Residue and Tillage Management, Mulch Till (345)
- s) Residue Management, No Till/Strip Till/Direct Seed (329)
- t) Residue Management, Ridge Till (346)
- u) Residue Management, Seasonal (344)
- v) Stripcropping (585)
- w) Terrace (600)
- x) Upland Wildlife Habitat Management (645)

y) Windbreak/Shelter Belt Establishment (380)

7. **References:** USDA NRCS Field Office Technical Guide

3. Deliverables for the Client – a hardcopy of the plan that includes:

- Cover page – name, address, phone of client and TSP; Total Acres of the Plan, signature blocks for the TSP, producer, and a signature block for the NRCS acceptance.
- Soils map and appropriate soil descriptions
- Resource assessment results (wind and water erosion, water availability, soil fertility, and others that may be needed)
- For management practices. The planned practices and the site specific specifications on how each practice will be applied; when the practice will be applied, and the extent (acres or number) that will be applied.
- For engineering/structural practices. The planned practice when it will be applied and extent, and located on the conservation plan map.

4. Deliverables for NRCS Field Office:

- Complete Hardcopy and Electronic copy of the client's plan (MsWord copy). **Optional:** If a Conservation Plug-in version is provided to NRCS a Hardcopy of the plan, conservation plan map and soils map is not required.
- Digital Conservation Plan Map with fields, features, and structural practices located.
- Digital Soils Map.