



Pest Management-Prevention & Avoidance, Organic New Jersey Conservation Practice Jobsheet

Natural Resources Conservation Service

September 2012

Client _____

Date _____



Definition

A site-specific combination of pest prevention, pest avoidance, pest monitoring, and pest suppression strategies.

Purposes

Pest management is applied to:

1. Prevent off-site pesticide risks to water quality from leaching, solution runoff and adsorbed runoff losses.
2. Prevent off-site pesticide risks to soil, water, air, plants, animals and humans from drift and volatilization losses.
3. Prevent on-site pesticide risks to pollinators and other beneficial species through direct contact.
4. Prevent cultural, mechanical and biological pest suppression risks to soil, water, air, plants, animals and humans.

Where Used

This Jobsheet is to be used where there is a plan to manage pests with Prevention and Avoidance IPM techniques in certified organic systems and farmers exempt from organic regulations or transitioning to organic certification.

General Criteria

- 1) A written IPM plan and implementation of activities that include:

- Prevention techniques such as cleaning equipment and gear when leaving an infested area, using pest-free seeds and transplants, irrigation scheduling to avoid situations conducive to disease development, etc.
 - Avoidance techniques such as maintaining healthy soil biology and diverse plant communities, using pest resistant varieties, crop rotation, refuge management, strip cropping, plant spacing, inter-planting, intercropping, multiple cropping, etc.
- 2) Only those substances listed in the National Organic Program regulations 205.601 and 205.603 or non-synthetic substances approved for use in organic systems may be used in the IPM program. All NOP restrictions, annotations and provisions related to the use of pest control substances shall be followed.
 - 3) Acreage must be certified organic, transitioning to organic, or managed by producers who are exempt from certification.
 - 4) Methods of pest management must comply with Federal, Tribal, State and local regulations.
 - 5) Utilize IPM that strives to balance economics, efficacy and environmental risks. Consult Rutgers Cooperative Extension Service for crop specific IPM information.
 - 6) Follow the attached pest management component of the overall conservation plan.
 - 7) All methods of pest management must be integrated with other components of the conservation plan.

595 Jobsheet

Natural Resources Conservation Service

CLIENT PEST MANAGEMENT RECORD WORKSHEET

This IPM document must be followed in a manner that implements all the appropriate prevention and avoidance techniques applicable to the crop(s) to avoid chemical suppression techniques (i.e. pesticide applications) that have a potential hazard to resources as identified by WIN-PST.

Organic IPM resources and more detailed information on the National Organic Program (NOP) Regulations are provided in the attached *Appendix- Guidance for NRCS Field Conservationists*.

Pests/Crop	Date/Timing/ Season	Prevention and Avoidance Techniques Implemented to Prevent the Need for Chemical Suppression Techniques

Organic and/or Pest management specialist consulted in developing the list above.

Cooperative extension CCA Other specialist(s) _____

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595-Specification

Natural Resources Conservation Service

CLIENT PEST MANAGEMENT RECORD WORKSHEET

It is recognized that in some situations, it will still be necessary to use suppression techniques due to conditions out of the control of the client. Therefore, if suppression is necessary the client will agree to use only the suppression techniques previously agreed to and only with the appropriate mitigation in place to meet the mitigation criteria of the IPM 595 practice standard. Agronomy Technical Note No. 5 has additional information relating to mitigation.

The previously agreed to suppression techniques are listed below and their accompanying mitigation(s) are listed in the attached print out of the mitigation worksheet.

Pests	Emergency Suppression Choice if Necessary	OMRI Listed or Certifier Approved?	Mitigation Needed?	
			<input type="checkbox"/> NO	<input type="checkbox"/> YES, see attached Pest Management Worksheet
		<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> YES, see attached Pest Management Worksheet
		<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> YES, see attached Pest Management Worksheet
		<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> YES, see attached Pest Management Worksheet
		<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> YES, see attached Pest Management Worksheet
		<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> YES, see attached Pest Management Worksheet

When preventative, avoidance, and/ or mechanical means of managing a weed, insect or disease pest is insufficient, a natural (non-synthetic) material may be applied. When this method is insufficient, an allowed synthetic material or approved non-synthetic material may be used if it is on the National List and if the conditions for using the substance are documented in the Organic System Plan.

Before making any changes to their Organic System Plan or applying any new inputs, producers should always check with their certifier.

595 Jobsheet

Natural Resources Conservation Service

CLIENT PEST MANAGEMENT RECORD WORKSHEET

Client _____

Location _____

Field(s) _____

County/SWCD _____

Farm/Tract No. _____

Prepared By _____

Date _____

DESIGN APPROVAL:

Practice Code NO.	PRACTICE	LEAD DISCIPLINE	CONTROLLING FACTOR	UNITS	JOB CLASS				
					I	II	III	IV	V
595	Integrated Pest Mgt.								

Design Approved by: _____ Date: _____

Job title: _____

CLIENTS ACKNOWLEDGEMENT STATEMENT:

The Client acknowledges that:

- a. They have received a copy of the specification and understand the contents and requirements.
- b. It shall be the responsibility of the client to obtain all necessary permits and/or rights, and to comply with all ordinances and laws pertaining to the application of this practice.

Accepted by: /s/ _____ Date: _____

CERTIFICATION:

I have completed a review of the information provided by the client and certify this practice has been applied.

Certification by: /s/ _____ Date: _____

Job title: _____

CLIENT PEST MANAGEMENT RECORD WORKSHEET**Required Records Section:**

- Pest suppression techniques, including cultural, biological, and physical methods, as well as NOP-allowed pest suppression materials (to be used only in the event that other methods prove insufficient).
- Records must demonstrate that pest suppression materials were used only when all other techniques have been proven insufficient (also per the NOP requirements).
- Map showing location of fields, acreage, beneficial insect habitat, etc.
- Pesticide environmental risk analysis tool that was used for pesticides selected from the NOP Prohibited and Allowed Substances list (WIN-PST).
- Pesticide application records with the specific management techniques that were utilized to reduce pesticide environmental risk (i.e., spot treatment, banding, pheromone traps, pesticide incorporation, etc.).

NOTE: Although not required by NRCS, clients operating in compliance with the NOP regulations are additionally required to maintain the following:

- Updated Organic System Plan to comply with the NOP Regulation § 205.201.
- National Organic Program regulation: § 205.103 Recordkeeping by certified operations.
 - (a) A certified operation must maintain records concerning the production, harvesting, and handling of agricultural products that are or that are intended to be sold, labeled, or represented as “100 percent organic,” “organic,” or “made with organic (specified ingredients or food group(s)).”
 - (b) Such records must:
 - (1) Be adapted to the particular business that the certified operation is conducting;
 - (2) Fully disclose all activities and transactions of the certified operation in sufficient detail as to be readily understood and audited;
 - (3) Be maintained for not less than 5 years beyond their creation; and
 - (4) Be sufficient to demonstrate compliance with the Act and the regulations in this part.

Pest Management-Prevention & Avoidance, Organic 595-JS

Natural Resources Conservation Service

September 2011

Appendix- GUIDANCE FOR NRCS FIELD CONSERVATIONIST

For internal use only.

The following guidance was prepared in response to the numerous questions that have been fielded in reference to the development of 595 job sheets/specifications for organic cropping systems.

By Sarah Brown, Joint Organic Specialist, Oregon Tilth/NRCS & Giulio Ferruzzi, Regional Agronomist, WNTSC Portland, OR

NRCS Pest Management policy focuses on preventing and mitigating environmental risks associated with the use of pesticides through the adoption of University-recognized IPM techniques and principles.

Considerations for Developing Organic 595 Job Sheets

For organic producers who follow some university-recognized form of commodity-specific IPM, the majority of their efforts are in planning activities that prevent pest populations from reaching levels at which pest suppression techniques (e.g. spraying) would be necessary. The efforts of the producers can range from eliminating habitat for sustaining pest cycles (e.g. crop rotations, predatory pest habitat, elimination of pest harboring plants, sanitation of equipment, etc.) to using alternative suppression techniques (e.g. flaming weeds, grazing, vacuuming insects, releasing predators, etc.). Regardless of the specific activities, these producers are able to manage pest populations in their fields without the need for pesticides that pose a potential hazard to SWAPAH. *Implementing 595 in this manner focuses on the adoption of a university-recognized IPM plan to prevent potential pesticide risks. It will be more common for organic growers to achieve this type of 595 since they are required by NOP Regulations to utilize management, physical, and cultural practices to prevent crop pests, weeds, and disease before using NOP approved substances. While required by NOP regulations, many organic producers are not performing IPM to University or NRCS recognized specifications and can benefit from the additional assistance provided by this practice.*

Prevention and avoidance activities appropriate to organic systems can include but are not limited to:

Cover cropping, crop rotation, sanitation, variety selection, intercropping, companion planting, mowing, livestock grazing, hand weeding, mechanical cultivation, flame weeding, solarization, mulching, plant spacing, physical barriers (row covers and high tunnels), and irrigation water management .

Providing optimum growing conditions for the crop plays an important part in organic pest management. Adequate but non-excessive levels of plant nutrients and soil moisture, favorable pH, and high soil quality can reduce plant stress, improve plant vigor and increase the plant's overall ability to resist or tolerate pests.

Associated NRCS practices:

449-Irrigation Water Management, 590-Nutrient Management, 340-Cover Crop, 328-Conservation Crop Rotation, 327-Conservation Cover, 422-Hedgerow Planting, 484-Mulching, 315-Herbaceous weed control, Residue & Tillage Management practices, and practices to support beneficial insect habitat.

The 595 Job Sheet Prevention & Avoidance in Organic Systems must be followed in a manner that implements all the prevention and avoidance techniques applicable to the crop(s) to avoid chemical suppression techniques (i.e. pesticide applications) that have a potential hazard to resources as identified by WIN-PST. Consult (Your State, if available) university-recognized commodity-specific IPM plan or set of guidelines.

Land Grant University Organic IPM Resources:

- New York State Organic IPM Program: http://www.nysipm.cornell.edu/organic_guide/
- The Resource Guide for Organic Insect & Disease Management, Cornell University: <http://web.pppmb.cals.cornell.edu/resourceguide/>
- Organic Vegetable IPM Guide, Mississippi State University: <http://msucares.com/pubs/publications/p2036.pdf>
- Insect Pest Management for Organic Crops, University of CA, Davis: <http://anrcatalog.ucdavis.edu/pdf/7251.pdf>
- UC IPM Online): <http://www.ipm.ucdavis.edu/> Many IPM guides include organic methods

Additional Resources:

- Pest Management & Organic Production Guides, National Sustainable Agriculture Information Service: <https://attra.ncat.org/organic.html>
- eOrganic: <http://www.extension.org/organic%20production> Organic agriculture information from the Cooperative Extension System
- Pollinator Conservation on Organic Farms, Xerces Society: <http://www.xerces.org/organic-farms/>

Pest Management-Prevention & Avoidance, Organic 595-JS

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Appendix- GUIDANCE FOR NRCS FIELD CONSERVATIONIST

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Terms Defined

Organic: Organic production is a system that is managed in accordance with the Organic Foods Production Act (OFPA) of 1990 and regulations in Title 7, Part 205 of the Code of Federal Regulations¹ to respond to site-specific conditions by integrating cultural, biological, and mechanical practices that foster cycling of resources, promote ecological balance, and conserve biodiversity. The USDA National Organic Program (NOP) develops, implements, and administers national production, handling, and labeling standards.

Certified Organic Operation: A crop or livestock production, wild-crop harvesting or handling operation, or portion of such operation that is certified by an accredited certifying agent as utilizing a system of organic production or handling (as described by the OFPA and standards of the NOP).

Transitioning to Organic producer: Transitioning to Organic is not defined by the NOP. The transition to organic period is generally understood as the time between the last application of a prohibited substance and when an operation or portion of an operation is eligible for organic certification. For organic certification, at a minimum, the land must have had no prohibited substances applied to it for a period of 3 years immediately preceding harvest of the crop. With sufficient documentation to prove that no prohibited substances have been applied in 3 years, producers can apply for and receive certification in a matter of months. The transition period can however last longer than 3 years.

Exempt from certification producer: A production or handling operation that sells agricultural products as "organic" but whose gross agricultural income from organic sales totals \$5,000 or less annually is exempt from certification and from submitting an organic system plan but must comply with the applicable organic production, handling, and labeling requirements.

Individual state Departments of Agriculture or Certification Programs can require producers exempt from certification to 'register' with the state.

USDA National Organic Program § 205.206 Crop pest, weed, and disease management practice standard.¹

- (a) The producer must use management practices to prevent crop pests, weeds, and diseases including but not limited to:
- (1) Crop rotation and soil and crop nutrient management practices, as provided for in §§205.203 and 205.205;
 - (2) Sanitation measures to remove disease vectors, weed seeds, and habitat for pest organisms; and
 - (3) Cultural practices that enhance crop health, including selection of plant species and varieties with regard to suitability to site-specific conditions and resistance to prevalent pests, weeds, and diseases.
- (b) Pest problems may be controlled through mechanical or physical methods including but not limited to:
- (1) Augmentation or introduction of predators or parasites of the pest species;
 - (2) Development of habitat for natural enemies of pests;
 - (3) Nonsynthetic controls such as lures, traps, and repellents.
- (c) Weed problems may be controlled through:
- (1) Mulching with fully biodegradable materials;
 - (2) Mowing;
 - (3) Livestock grazing;
 - (4) Hand weeding and mechanical cultivation;
 - (5) Flame, heat, or electrical means; or
 - (6) Plastic or other synthetic mulches: *Provided*, That, they are removed from the field at the end of the growing or harvest season.
- (d) Disease problems may be controlled through:
- (1) Management practices which suppress the spread of disease organisms; or
 - (2) Application of nonsynthetic biological, botanical, or mineral inputs.
- (e) When the practices provided for in paragraphs (a) through (d) of this section are insufficient to prevent or control crop pests, weeds, and diseases, a biological or botanical substance or a substance included on the National List of synthetic substances allowed for use in organic crop production may be applied to prevent, suppress, or control pests, weeds, or diseases: *Provided*, That, the conditions for using the substance are documented in the organic system plan.
- (f) The producer must not use lumber treated with arsenate or other prohibited materials for new installations or replacement purposes in contact with soil or livestock.

¹Title 7, Part 205 of the Code of Federal Regulations, National Organic Program, 06/14/2011: http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=/ecfrbrowse/Title07/7cfr205_main_02.tpl

Practice Checkout

	Year 1	Year 2	Year 3
Date Completed			
Field No. / Acres Completed			
Date Checked			
Checked by			
Remarks			