

CHAPTER 10

LAWS AND REGULATIONS

LEARNING OBJECTIVES

After completely studying this chapter, you should:

- Understand laws that are designed to prevent introduction of exotic pests.
- Know what steps are taken to detect exotic pest introductions.
- Know what a regulatory pest is and what is done to prevent its spread.
- Know what options are available to decrease the impact of insecticide spray on natural enemies while still meeting regulatory requirements.
- Understand the federal Worker Protection Standard (WPS), including definitions, pesticide information requirements, requirements for protection from pesticide exposure, and requirements for mitigating pesticide exposures.

PREVENTION, DETECTION, AND REGULATION OF EXOTIC PESTS

Prevention of Exotic Pest Invasion

Invasions of exotic pests—e.g., those that are not native to North America—are a major concern in forest ecosystems. Damage can be severe when exotic pests become established without the complex of natural enemies that would normally hold them in check. There is also the potential for serious impacts on native species. Various quarantine laws and procedures are intended to prevent introduction of exotic pests into the United States. Rules govern international movement of plants

and treatment of logs, crates, pallets, dunnage, and other potential methods of pest introduction. Inspections at shipping ports and borders help to reduce pest introductions. Given the volume of international trade that occurs between the United States and other countries, however, it is unlikely to expect that all potential pests will be intercepted.

Detection Systems

Once an exotic plant-feeding pest becomes established in Michigan, crews from federal and state regulatory agencies conduct delimitation surveys to identify the extent of the infestation. Counties where the pest is found are then quarantined for that pest. The Michigan Department of Agriculture and the federal Animal and Plant Health Inspection Service (APHIS) are required to prevent the spread of these exotic pests into new areas where they are not yet established. Because plant products such as Christmas trees, nursery stock, or logs can carry exotic plant-feeding pests and can introduce them into new areas, shipments of plants and trees out of quarantined areas are highly regulated.

Regulating Pests

The term *regulatory pest* is used here to refer to plant-feeding exotic insects that have become established in some states or regions. Gypsy moth and the pine shoot beetle are two important examples of regulatory pests that affect Christmas tree production in much of the northeastern and north central regions of the United States. Typically, Christmas trees grown in quarantined counties must pass inspection or meet other requirements to ensure that none of the trees are infested with the exotic pest. If the trees are determined to be free of the pest, then they can be shipped out of the quarantined county or state to an unquarantined area. If the pest is present, then trees can be sold only within the quarantined area.



Currently, many growers in counties infested with gypsy moths must meet regulations that include a mandatory application of an insecticide before Christmas trees can be inspected or certified and shipped. The insecticide spray is generally required regardless of actual pest presence or density within the field. Regulatory pests pose a special challenge to growers who wish to implement biological control in Christmas tree fields.

Optimizing Mandated Regulatory Sprays

Pest managers do have some options available that can decrease the impact of insecticide sprays on natural enemies while still meeting regulatory requirements.

Use the pesticide with the least impact on beneficial insects. Generally, growers are provided with a list of approved insecticides that can be used to control regulatory pests. Some pesticides on the list may be less disruptive than others at the time when sprays are required.



Use the regulatory spray for more than one purpose. When insecticide sprays are required, use the mandated spray to control more than one pest, whenever possible. For example, a single insecticide application can be timed to coincide with emergence of pine needle scale crawlers while meeting gypsy moth spray requirements.

Use good cultural practices. Cultural management practices can sometimes be used to replace or enhance

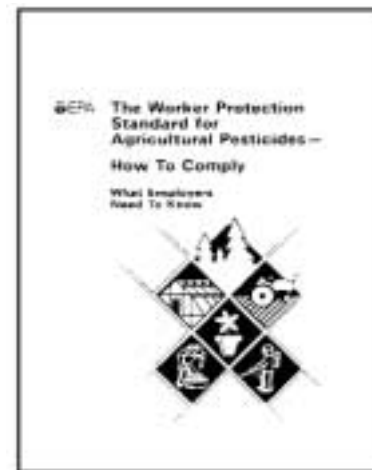
control of some regulatory pests and will conserve more natural enemies than repeated insecticide applications. Though the Pine Shoot Beetle Compliance Program does include one insecticide spray, it emphasizes cultural practices such as destruction of brood material and use of trap logs to reduce beetle populations within a field. These practices are effective and are less harmful to most beneficial insects than repeated sprays of broad-spectrum insecticide throughout the summer.

WHAT PESTS ARE REGULATED IN MICHIGAN?

Contact your regional Michigan Department of Agriculture office for a current list of regulated pests and details on how to comply with regulatory procedures.

WORKER PROTECTION STANDARD (WPS)

The federal Worker Protection Standard (revised in 1992) pertains to those who apply pesticides or who work in pesticide-treated areas of agricultural establishments—on farms and in forests, nurseries, and greenhouses. The WPS requires employers to provide workers and pesticide handlers with protection against possible harm from pesticides applied to agricultural plants. Operations producing Christmas trees and operations producing plants for wood fiber and timber products are specifically covered under the WPS as agriculture-related establishments. Forest nurseries and seed orchard operations are also included under WPS.



Owners and immediate family members who work on the establishment are exempt from some of the WPS requirements.

The WPS requires employers to take steps to protect workers and pesticide handlers from exposure to pesticides. A worker is anyone who is: employed (including self-employed) for any type of compensation and doing tasks such as harvesting, weeding, or watering relating to the production of agricultural plants on a farm or in a forest, nursery, or greenhouse. This term does not include persons who are employed by a commercial establishment to perform tasks as crop advisers.

A pesticide handler is anyone who is employed (including self-employed) for any type of compensation by an establishment that uses pesticides in the production of agricultural plants on a farm or in a forest, nursery, or greenhouse, and doing any of the following tasks:

- Mixing, loading, transferring, or applying pesticides.
- Handling opened containers of pesticides.
- Cleaning, handling, adjusting, or repairing parts of equipment that may contain pesticide residues.
- Assisting with the application of pesticides, including incorporating the pesticide into the soil after the application has occurred.
- Entering a greenhouse or other enclosed area to:
 - Operate ventilation equipment.
 - Adjust or remove coverings, such as tarps used in fumigation.
 - Check air concentration levels after application and before the inhalation exposure level (listed on the product labeling) has been reached or one of the WPS ventilation criteria has been met.
 - Entering a treated area outdoors after application of any soil fumigant to adjust or remove soil coverings, such as tarps.
 - Disposing of pesticides or pesticide containers.



WPS Requirements

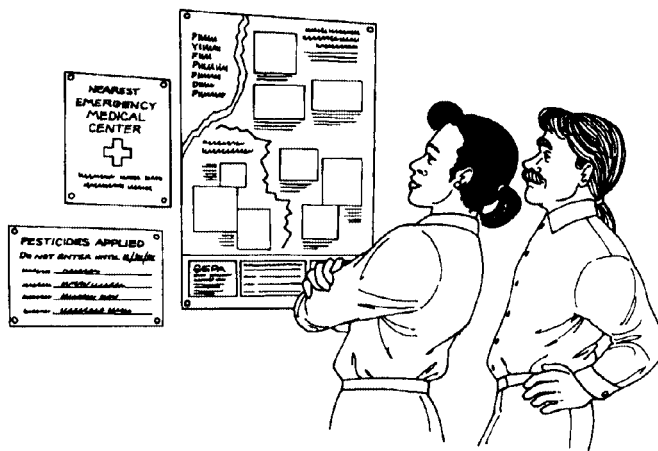
If you are an agricultural pesticide user and/or an employer of agricultural workers or pesticide handlers, the WPS requires you to provide to your employees and, in some cases, to yourself and to others:

- Information about exposure to pesticides.
- Protection against exposures to pesticides.
- Ways to mitigate (lessen or reduce) exposures to pesticides.

Information

To ensure that employees will be informed about exposure to pesticides, the WPS requires:

- Pesticide safety training—for workers and handlers. Michigan pesticide applicator certification credentials satisfy the requirement for both worker and handler training.
- Pesticide safety poster—to be displayed for workers and handlers.

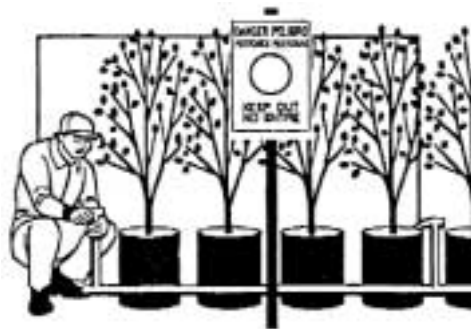


- Access to labeling information—for pesticide handlers and early-entry workers.
- Access to specific information—a centrally located application list of pesticide treatments on the establishment.

Protection

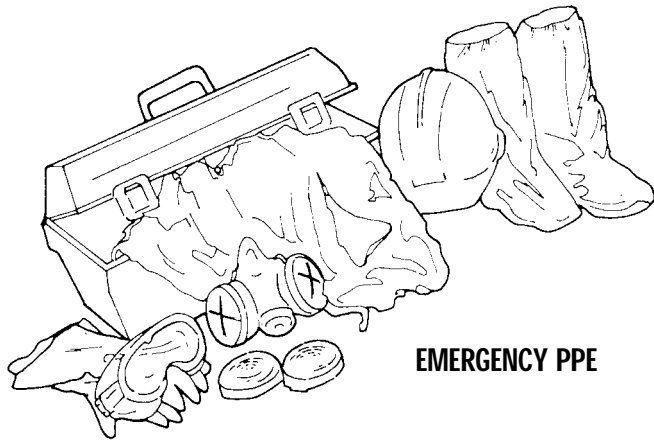
To ensure that employees will be protected from exposures to pesticides, the WPS requires employers to:

- Prohibit handlers from applying a pesticide in a way that will expose workers or other persons.
- Exclude workers from areas being treated with pesticides.
- Exclude workers from areas that remain under a restricted-entry interval (REI), with narrow exceptions.



- Protect early-entry workers who are doing permitted tasks in treated areas during an REI. Requirements include special instructions and duties related to correct use of personal protective equipment (PPE).

- Notify workers about treated areas so they can avoid inadvertent exposures.
- Protect handlers during handling tasks. Requirements include monitoring while handling highly toxic pesticides and duties related to correct use of PPE.

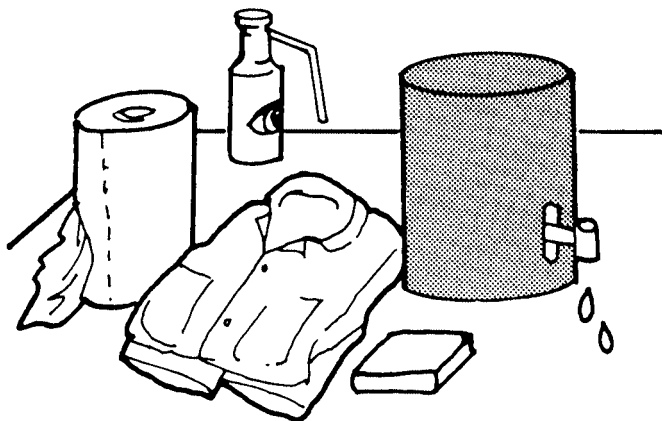


EMERGENCY PPE

Mitigation

To mitigate pesticide exposures that employees may receive, the WPS requires:

- Decontamination sites—providing handlers and workers an ample supply of water, soap and towels for routine washing and emergency decontamination, and a change of clothing for handlers.



PERSONAL DECONTAMINATION EQUIPMENT

- Emergency assistance—making transportation available to a medical care facility if an agricultural worker or handler may have been poisoned or injured by a pesticide, and providing information about pesticide(s) to which the person may have been exposed.

For detailed information about your responsibilities under the WPS, see the Environmental Protection Agency’s manual *Worker Protection Standard for Agricultural Pesticides—How To Comply*. It will tell you what you need to do to comply with the federal worker protection requirements. The manual is available from EPA regional offices, state or tribal pesticide agencies, Extension Service offices, the Government Printing Office, and commercial sources.

OTHER REGULATIONS

Other federal regulations may affect some of the tasks you perform as a certified pesticide applicator. In some cases, the pesticide label will alert you to laws or regulations with which you must comply.

For more information about laws that affect all categories of certified applicators, see the *Pesticide Applicator Core Training Manual*, Chapter 2, Part A: “Laws and Regulations.”

CHAPTER
10

Review Questions

Chapter 10: Laws and Regulations

Write the answers to the following questions and then check your answers with those in the back of the manual.

1. Why are exotic pests a danger to forest ecosystems?
 - A. True
 - B. False
2. Inspections at shipping ports and borders have prevented all introductions of exotic pests.
 - A. True
 - B. False
3. What is a regulatory pest? Give two examples.
4. What is the purpose of a delimitation survey?
 - A. To determine the extent of an exotic pest infestation.
 - B. To prevent exotic pest entry from foreign ports.
 - C. To determine if pesticides have been misused in controlling exotic pests.
 - D. To determine if natural predators are present to control exotic pests.
5. What agencies are required to prevent the spread of exotic pests in Michigan?
 - A. Michigan Department of Natural Resources (MDNR) and the Environmental Protection Agency (EPA)
 - B. MDNR and the Animal and Plant Health Inspection Service (APHIS)
 - C. Michigan Department of Agriculture (MDA) and APHIS
 - D. MDA and EPA
6. What happens to Christmas trees grown in quarantined counties in Michigan?
 - A. They are inspected for exotic pests; if any are found, all trees in the plantation are destroyed.
 - B. They are inspected for exotic pests; pest-free trees can be sold inside the quarantined area—all others must be destroyed.
 - C. They are inspected for exotic pests; if pests are present, they can be sold only within the quarantined area—if pests are not found, they can be sold outside the quarantined area.
 - D. They are inspected for exotic pests; if any are found, the plantation manager must agree to use pesticide sprays before selling the trees.
7. What must Christmas tree growers agree to in Michigan counties infested with gypsy moths?
 - A. Must agree to apply an insecticide before the trees can be inspected, certified, or shipped.
 - B. Must agree to attempt biological controls first before resorting to insecticides.
 - C. Must agree to apply an insecticide if the gypsy moth is actually present in the field.
 - D. Must agree to attach a label warning before shipping the trees to other counties.
8. What can pest managers do to decrease the impact of insecticide sprays on natural enemies when spraying has been mandated by law?

9. What controls are included in the Pine Shoot Beetle Compliance Program other than the insecticide spray? Why are these cultural controls added to the program?
10. Whom do you contact to find out which pests are regulated and how to comply with regulations?
- A. MDNR
 - B. APHIS
 - C. MDA
 - D. EPA
11. The Worker Protection Standard (WPS) requirements apply to Christmas tree operations and operations producing plants for wood fiber and timber products but not to forest nurseries and seed orchard operations.
- A. True
 - B. False
12. What is required by WPS?
- A. Employers must take steps to protect only the employees that handle pesticides from pesticide exposure.
 - B. Employers must take steps to protect employees including pesticide handlers and other agricultural workers from pesticide exposure.
 - C. Persons hired as crop advisers are required to protect employees (pesticide handlers and other agricultural workers) from pesticide exposure.
 - D. Workers who are non-pesticide handlers are required to provide information to others to protect them from pesticide exposure.
13. According to WPS, a pesticide handler does not include people who enter a greenhouse to perform routine tasks such as operating ventilation equipment or removing coverings or tarps used in fumigation.
- A. True
 - B. False
14. According to WPS, what information must be provided to protect employees from pesticide exposure?
15. Which is NOT a protection requirement of WPS?
- A. Employers must train employees in IPM techniques.
 - B. Workers must be excluded from areas being treated with pesticides.
 - C. Employers must provide special instructions and duties related to correct use of personal protective equipment (PPE).
 - C. Early-entry workers doing permitted work in an area under a restricted-entry interval (REI) must be protected.
16. What are the WPS requirements for mitigating exposure to pesticides?