



## PENN STATE UNIVERSITY PESTICIDE MANAGEMENT PROGRAM

### RESEARCH PESTICIDE USE PROGRAM OVERVIEW

The Penn State University Pesticide Management Program has requirements for pesticide use on University property. This document presents a summary of the program requirements as they apply to pesticide use for research applications. Research use of pesticides may occur in laboratories or as site applications. Research pesticide use includes:

- Unregistered pesticides that are covered by experimental use permits
- Unregistered pesticides that are exempt from experimental use permits
- Registered pesticides with new types of applications (e.g., new pests or crops)
- Registered pesticides for labelled use (e.g., comparisons of yields under different types of cultivation)

These different types of use are regulated differently; it is important to be sure that you are in compliance with the applicable regulations (see below).

#### **Responsibilities:**

Pesticide Applicators must:

- Comply with program requirements,
- Read and follow pesticide label directions and be knowledgeable of the hazards of the pesticides being used, or in the absence of a label for an unregistered pesticide, be knowledgeable of the material and its hazards,
- Wear or use all PPE required by the label, or in the case of an unregistered pesticide, by the hazards of the material (err on the side of safety),
- Report all unsafe practices/conditions to supervisors, and
- Take actions during an emergency

Supervisors must:

- Understand the requirements of this program and ensure that they are fulfilled,
- Ensure that required PPE is available and used,
- Ensure that Integrated Pest Management is used at their facilities unless specific research protocols prevent its use,
- Take corrective actions when unsafe conditions are found, and
- Investigate accidents/incidents

#### **Licensing/Certification:**

Each Penn State facility that applies pesticides (whether they are registered pesticides or not) must have a business license as a public applicator and have certified applicators to apply pesticides. Certification categories that might apply, depending on the activity are: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 15, 16, 17, 18, 19, 20, and 21. Applications can only be made by an uncertified person if they are under the direct supervision of a certified applicator who is physically present and within sight of the uncertified applicator. Applicators must take required courses to maintain certification.

Pesticide research in laboratories, which does not involve pesticide applications, does not require the researcher to be a certified pesticide applicator or to have a public applicator business license.

#### **Experimental Use Permits and Exemptions:**

EPA grants permits to allow a pesticide producer to test a new pesticide, product, or use outside the laboratory. Experimental use permits (EUPs) are used for large-scale testing of efficacy and gathering of environmental fate, ecological effects, and crop residue chemistry data. The EUP sets

requirements for transportation, application, and disposal of unregistered test products. Regulations governing EUPs are found in 40 CFR 172. Generally these permits are granted to a manufacturer and Penn State may be a cooperator under the permit.

Experimental use of pesticides may be performed without a permit under the following conditions:

- The application area is under 10 acres (if land) or 1 acre-foot (if water),
- The pesticide use is experimental and limited,
- There is no financial gain from the use of the pesticide, and
- The food or feed crop is destroyed.

#### **Worker Protection Standard:**

Some research applications of pesticides are covered by the EPA's Worker Protection Standard (WPS). These include those used in the production of agricultural plants on farms, forests, nurseries, and greenhouses. **Agricultural plants include those grown or maintained for commercial or research purposes.** The WPS does not cover research use of *unregistered* pesticides. Refer to "The Worker Protection Standard – Does It Apply to Me?" at the EHS website for more information.

#### **Proper Pesticide Storage:**

- Liquids in secondary containment; heavier bags near, but not on the floor
- Segregate pesticides from fertilizers
- Ensure pesticides are stored in original containers with legible labels
- Date all containers – use older pesticides first
- Maintain annual inventory
- Provide access to MSDSs through web or hard copy
- Maintain proper temperature and keep out of direct sunlight
- Keep all containers closed when not in use
- Post door with "Danger – Pesticide Storage Area"
- Keep storage area secure and locked when not in use
- Maintain spill kit, first aid kit, and fire extinguisher
- Provide emergency contact info
- Provide separate storage area for PPE

#### **Pesticide Handling and Use:**

- Perform mixing and loading in a location where spills can be cleaned up (such as on a concrete pad) or vary the locations if doing this at the application site so that pesticides from small spills do not build up in the area.
- If spills occur, clean them up. Ensure that decontamination supplies are available (see below).
- Properly rinse all pesticide application equipment and spray the rinsate out in an appropriate labelled location.
- Use Integrated Pest Management except where specific research protocols must be followed.
- The label is the law – follow all PPE and other label requirements or for unregistered pesticides, follow the safety protocol for the material.
- Check PPE requirements to chemical resistance chart to ensure the correct material is used for the PPE.
- If a respirator is required to be worn, be in the EHS Respiratory Protection Program.
- Follow special application restrictions if applying in nurseries or greenhouses.
- If the pesticide application is covered by the WPS and a restricted entry interval is in effect, either keep workers out of the area until it expires or follow WPS requirements for early entry workers.

**Notification:**

- If an *EPA experimental use permit* exists, the PDA must be notified (copy of EPA approval letter, properly completed product label, and list of participants and cooperators involved in the program).
- If a *hypersensitive person* is located within 500 feet of application area and application is not below the soil surface or injected into a tree, notify that person (this is required even for unregistered pesticides).
- If *restricted use pesticides are applied for agricultural use*, perform newspaper notification (two newspapers) or notify orally or by certified mail every contiguous landowner or must placard application site.
- If *restricted use pesticides are applied non-agriculturally at a specific site* (e.g., gravel lot weed control), notify contiguous landowners orally or by certified mail.
- If *restricted use pesticides are used for non-agricultural area-wide applications* (e.g., 25 or more acres), perform newspaper notification (two newspapers).
- If *general use pesticides are applied on ornamental plant or turf*, notify contiguous landowners if they request this.
- If *required by the pesticide label and application is covered by the WPS*, notify workers of the proposed pesticide application orally or by posting warning signs, or if directed by the label use both methods

**Decontamination Supplies:**

Decontamination supplies must be present at the mixing/loading site, within ¼ mile of the application site, and at the location where applicators remove their PPE. The following supplies are required (per applicator):

- At least 3 gallons of water for washing,
- Soap and single-use towels,
- One pint of eyeflush (eyeflush required at application site only when label requires eye protection and must be immediately available), and
- Clean clothes (e.g., one-size coveralls).

The following is a list of decontamination supplies that are required by the WPS for each worker (non-applicator) in an area where an **agricultural** pesticide was applied within the last 30 days or a restricted entry interval was in effect (per worker):

- At least 1 gallon of water for washing and emergency eyeflushing,
- Soap and single-use towels, and
- For early-entry workers, one pint of eyeflush (eyeflush required only when label requires eye protection and must be immediately available).

**Pesticide Application Records:**

- Date of the application and for a pesticide requiring a reentry time, the time completed,
- Restricted entry interval, if one exists,
- Location and address of application site and identification of the application site including specific field or land area, the plant, and the size of the treated area,
- Brand name and formulation used, active ingredient, and dosage rate,
- Name of applicator and registration number of each person making or supervising the application, and
- EPA registration number (if applicable).

**Central Location Posting Requirements (If WPS applies):**

- Emergency contact information,
- EPA pesticide safety poster, and

- Application list posted for 30 days following an application or the end of a restricted entry interval

**Worker Protection Standard Training (if applicable):**

A certified applicator is not required to have additional training. Agricultural workers that do not apply pesticides and pesticide handlers who are not certified applicators are required to complete Worker Protection Standard training every five years.

**Disposal:**

Dispose unneeded pesticides through PDA's CHEMSWEEP or through EHS Chemical and Chemical Waste Management Program. Dispose of clothing contaminated with restricted use pesticide concentrate through this program also, all other pesticide concentrate-contaminated clothing in the trash. Program manual contains laundering guide.

**Pesticide Transportation:**

Never transport pesticides in the same compartment of the vehicle as people. An open truck or pickup truck is preferred with the load secured to prevent containers from shifting. If you use an open vehicle to transport pesticides, never leave it unattended. Bring a small spill kit and place liquid pesticides in secondary containment.

**Safety and Emergency Procedures:**

Preplan for emergencies (see manual for requirements). Prepare the "Vital Building Information" if required.

**Pesticide Spills and Releases:**

- Identify problem
- Protect yourself (PPE)
- Stop the source of the spill or release
- Call 911 if an emergency release
- Contain the spill
- Recover the spilled material and absorbent
- Properly dispose of material
- Call EHS as soon as possible

**Incident/Accident Documentation and Investigation:**

Document and investigate all incidents/accidents within one week's time, and take corrective measures if needed. Communicate findings to the work group.

**Documentation and Recordkeeping:**

- Current business license and applicator certifications
- Hypersensitivity registry contacts (3 yrs)
- Prior notification (3 yrs)
- Records of pesticide applications (3 yrs), posted for 30 days following an application or the end of a restricted entry interval
- Training records for workers and handlers (if required)
- Annual Inventory
- Annual self-audit of program implementation – perform annually and submit to EHS by January 31st

**Refer to the Penn State University Pesticide Management Program Manual at [www.ehs.psu.edu](http://www.ehs.psu.edu) for detailed information on these topics.**