PESTICIDE SAFETY PROGRAM

Environmental Health and Safety

3/30/23

PURPOSE AND SCOPE

Illinois State University's Pesticide Safety Program applies to licensed pesticide handlers working with pesticides on Univeristy Property. This program is designed to ensure these employees are properly trained on and aware of the hazards they may be exposed to while working with pesticides at the University. This program also fulfills the requirements of the Federal Insecticide, Fungicide and Rodenticide Act(FIFRA) which regulates pesticide safety and worker protection standards through the U.S. Environmental Protection Agency(EPA). Minimizing and controlling employee exposure to hazardous pesticides will be accomplished by following the Industrial Hygiene Hierarchy of controls, which is: Eliminating products that can be substituted for less hazardous chemicals, use of engineering controls, safe work practices, employee training and the use of personal protective equipment. Use of personal protective equipment will be used as a last resort option when all other controls have been exhausted.

This program will apply to all CAMPUS PERSONNEL who are responsible for mixing, handling, or applying hazardous pesticides on any Universiy or Univeristy Foundation property.

1. RESPONSIBILITIES

a. Environmental Health and Safety(EHS)

- Serve as subject matter expert on hazardous material identification and product hazard reveiws
- Serve as the administrator for the Univeristy MSDS Online system
- Conduct hazard evaluations and/or worker exposure monitoring to identify if there are any uncessary exposures or exposures that exceed occupational exposure limits.
- Assist Departmet Directors and workers in the selection of appropriate personal protective equipment including respiratory protection.
- Ensure potential respirator wearers are medically evaluated.
- Conduct annual respirator fit testing and required training of respirator wearers

b. Department Directors

- Assist EHS in developing departmental guidelines to supplement this program.
- Promote and ensure compliance with this program.
- Establish and maintain budget support of this program for the department.

c. Supervisors/Designees

- Identify all work activities where there is exposure or potential for exposure to hazardous chemicals.
- Ensure that the requirements of the program are observed and practiced by their workers
- Coordinate with EHS on how to address hazards or other concerns regarding this program.
- Submit accident/incident reports whenever employees incur injury or have an exposure that results in any symptoms directly related to the exposure. The reports are submitted on the EHS website under Accident Reporting.
- Conduct timely and effective worker training for new employees and ongoing with current employees.
- Ensure appropriate and effectice personal protective equipment(PPE) is available and no cost to workers at all times

d. Employees

• Attend all required department training sessions, respirator fit testing/training as deemed necessary by Supervisor/Designee.
• Properly inspect and wear appropriate personal protective equipment(PPE) and report damage, breakdown, and/or need for replacement to Supervisor/Designee.
• Notify supervisor of a change in health status, weight gain or loss of 20 pounds or more, a change in dental situation, or substantial scarring in the facial area.
• Inform supervisor or Program Administrator of any hazards that they feel are not adequately addressed in the workplace and of any other concerns that they have regarding the program.

2. DEFINITIONS

The following definitions are important terms used in this pesticide safety program:

HAZCOM: Hazard Communication Standard set by OSHA to ensure chemical safety in the workplace. This includes information about chemical hazard classifications, container labeling, safety data sheets(SDS), and training.

Personal Protective Equipment(PPE): Protective clothing and equipment designed to minimize exposure to hazards that can cause serious workplace injuries and illnesses. This includes but is not limited to glasses, goggles, gloves, respirators

Pesticide: Substances intended and used to deter, incapacitate, kill or otherwise discourge pests. Pesticides included herbicides, insecticides, fungicides, insect repellants and rodenticides.

Respirator/Respiratory Protection: Use of a respirator to protect the respiratory tract by filtering out potentially harmful substances and chemicals. Respirators range from N-95 and P-95 filtering face piece masks to half face and full face respirators with either particulate or chemical filters.

Pestice Drift: Unintentional diffusion of pesticides and the potential negative effects of pesticide application. Drift can be caused by spray drift from wind as well as runoff from plants or soil. Drift can lead to unnecessary exposure to the applicator and the general public, environmental contamination, and property damage.

3. PROGRAM ELEMENTS

a. General Pesticide Safety

To help reduce the hazards associated with pesticides, the following provides guidelines for the safe hadling of pesticides at the Univeristy:

- Check all pesticide application equipment before use to ensure proper working condition(see Section 6 and Appendix B of this program for further details).
- Read and understand pesticide lables carefully. Follow the label directions when mixing, applying, storing, or disposing of pesticides.
- Review the producst Safety Data Sheet(SDS), available on MSDS Online through the EHS website, prior to handling pesticides.
- Wear appropriate personal protective equipment(PPE) to prevent skin contact, inhalation, and mucous membrane exposure when handling pesticides.
- Do not eat, drink, or smoke when handling pesticides.
- Do not transport, mix, or use pesticides unless you have a means for communication(cell phone or ISU radio) if help is needed.
- Always report incidents including personal exposure incidents, exposures to general public or pets, spills, and any environmental concerns to Supervisors/Designees immediately.

b. Preparing to Apply Pesticides

Preparation is essential for chemical safety. The following work practices and procedures will greatly reduce the likelihood of exposure and/or injury from the use of hazardous pesticides and shall be adhered to whenever possible:

i. Plan ahead

Always read chemical labels before attempting to work with pesticides. Identify the hazards, first aid procedures, and decontamination measures.

ii. Move pesticides safely

Careless chemical transportation can cause spills and contamination. Do not carry pesticides in an enclosed area, such as a car. Be sure to secure the pesticides to prevent shifting or bouncing. Never leave your vehicle unattended when transporting chemicals.

iii. Select application equipment

Choose suitable equipment to properly apply pesticides. Before using the equipment, inspect it for good working order:

- Review and understand information provided in all spraying equipment operators manual with particular attention given to safety procedures
- Inspect all sprayer tanks for damage or disrepair
- Ensure that the tank holds pressure and the lid does not leak
- Ensure straps, hoses, regulator, wand, and nozzle(s) are clean, undamaged and functioning properly.
- Check for leaks in the sprayer tank and all attachments

iv. Select appropriate personal protective equipment

Regardless of the pesticides toxicity, always wear long-sleeve shirt and pants when working with pesticides. Wear additional protective equipment, as necessary. Inspect all PPE before each use for leaks, holes, tears, or worn places. Any repairs to PPE must follow the manufacturers recommendation. Discard damage equipment that cannot be repaired. **Note: All workers who wear filtering face piece respirators must be included in the University Respiratory Protection Program for medical surveilliance and fit testing.**

v. Provide prior notification

Prior to applying pesticides, inform all people in or around the application area. Notification allows people to protect themselves, children, and pets from harmful chemicals. Notificaton can include written and verbal communicatons as well as on site notifications such as flagging.

c. Mixing Pesticides

The University Chemical Rinsate Building and Grounds South Shed are the designated location for the storage and mixing of all pesticides. Both locations have eyewash stations available for first aid response. Always read and carefully follow label directions when mixing chemicals. Even if you are familiar with a particular chemical, reread the label to ensure that you have the latest safety information. In addition, follow these guidelines for mixing pesticides:

i. Work in a Safe Area

Ensure that when mixing and locading pesticides the area is well ventilated, well lit, and clear of obstructions and trip hazards. Concrete slabs are ideal for mixing chemicals since they allow for easy cleanup.

ii. Measure Chemicals Correctly

Measure and mix pesticides carefully. Never mix different pesticides except as directed by the label or chemical manufacturer. Do not use more chemical than prescribed by the pesticide label. The overuse of pesticides is illegal, and may result in worker injury or unnecessary exposure, surface water pollution, groundwater pollution, pesticide resistance and higher pest control costs

iii. Pour Pesticides Carefully

Always wear eye protection, protective gloves and other other appropriate PPE including proper respiratory protection if necessary when pouring pesticides. Take care not to splash or spill when pouring pesticides. Never use your mouth to siphon pesticides.

d. Applying Pesticides-General

You are responsible for protecting yourself, other people, and the environment when applying pesticides. Follow these safety guidelines when applying pesticides:

i. Minimize Exposure

Even mildly toxic chemicals can harm you if you use them daily and don't take the proper precautions. Take care to minimize your exposure to any chemical. Avoid working in pesticide spray, mist, or runoff.

ii. Avoid Applying Pesticides in Sensitive Areas

Avoid spraying pesticides in high traffic and densely populated areas (e.g., student common areas, playgrounds, etc.). If you must apply pesticides in sensitive areas, plan to do so when the weather is calm and people are not around. Note: prior notificaitons and arrangements are made before applying on the grounds of Metcalf, U-High and any Athletics Field.

iii. Avoid Pesticide Drift, Runoff, Spills

Pesticides that fall outside the targeted application area can be very hazardous. Choose weather conditions, equipment, and chemicals that eliminate or minimize the risk of pesticide drift, runoff, and spills.

iv. Avoid Equipment Accidents

Equipment accidents are often caused by poor maintenance and improper work habits. Avoid equipment accidents by following all operating instructions specific to the equipment being used, cleaning, and properly maintaining the equipment.

e. Applying Pesticides-Backpack Sprayers

i. Thoroughly review and understand information provided in the backpack pesticide sprayer operators manual to include descriptions of safety procedures.

ii. Each backpack sprayer will have an inspection checklist reminder sticker(see appendix) for the operator of the equipment before each use.

iii. Before using, always preform a pre-use inspection of the backpack sprayer tank for damage or disrepair and make sure sprayer hoses, regulator, wand, and nozzle(s) are clean and functioning properly. Ensure that there are no leaks in any components of the unit by pressurizing the system and performing a thorough inspection.

iv. If a backpack sprayer fails the pre-use inspection, remove the sprayer from use.

v. Always wear appropriate PPE when using the backpack sprayer and when applying pesticides from the sprayer

vi. In the event of a leak in any of the backpack sprayer components that causes chemical skin exposure, immediately remove the backpack sprayer and rinse the exposed skin with clean water as soon as possible. Report the incident to your supervisor immediately.

vii. Following use, store the backpack sprayer out of direct sunlight to prevent ultraviolet radiation damage.

f. Pesticide Storage and Disposal

i. Always try to mix the amount of pesticide you plan to use and try to use all the pesticide in your application tank. If pesticides remain, store the container for future use or use the remaining product on other target pest locations.

ii. After emptying the tank, clean and store the equipment as directed by department procedures.

iii. **Never pour unused pesticides down sink or floor drains, storm drains, or into surface water.** Follow the triple rinse procedure included in the University Pesticide Training document

iv. All pesticides shall be properly labeled and stored on appropriate storage racks, pallets, hard- non absorbent surfaces or in a manner otherwise included in the Univeristy Pesticde/Herbicide Training Program at all times. The designated chemical storage location for all bulk pesticides is the Campus Services Chemical Rinsate Building.

4. EDUCATION AND TRAINING

a. All Grounds Employees who will mix, transport or apply pesticides must receive initial traning prior to being assigned tasks involving chemicals. The training shall include, but not limited to, the elements of this program, the University Pesticide/Herbicide Training Program, HAZCOM training, and hands on training by their supervisor

b. Annual training on the elements of this program and the Univeristy Pesticide/Herbicide Training Program and any hands on trainng deemed necessary by Department Direcotrs and Supervisors throughout the year is recommended. Re-training should also occur as part of a corrective action plan following any pesticide exposure incident. All training shall be documented on the Facilities Training Record and Attendance Roster(see appendix D).

5. RECORDKEEPING

Upon completion of initial and annual training, Department Directors and Supervisors shall ensure that all employees receiving training sign the Acknowledgement of Training(Pesticide Application) form(Appendix D). These forms should be kept on file for the period of time between each training to ensure that a copy of current completion of trainng is on file for each employee.

6. PROGRAM ELECTIVES

The Illinois State University Pesticide Safety Program and the University Pesticide Training Program shall be reviewed annually by EHS.

7. EFFECTIVE DATE

This program is effective 2/26/2020, updated last on 3/30/23

8. APPENDICES (A-D)

Appendix A: Pesticide/Herbicide Application Report

Appendix B: Universtiy Hazard Communication Program

Appendix C: Universtiy Pesticide/Herbicide Training Program

Appendix D: Pesticide/Herbicide Training Acknowledgment Of Training Form