



**Duke University - Facilities Management Department
Environmental Safety and Health Program**

Pesticide Management Safety Program--DRAFT

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| Area: All FMD Organizations | Date Effective: 10/31/2021 |
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A. Purpose

To help reduce the hazards associated with pesticide usage in an occupational setting.

B. Scope

This program applies to all FMD employees and supplemental labor.

C. Policy

1. FMD will take all reasonable measures to provide a safe workplace. All FMD operations must be performed in a manner which will prevent any undesirable effects to FMD and/or Duke employees, assets, the local community, and the environment.
2. The provisions of this program and all applicable standards will be followed to ensure the safety of personnel performing services or maintenance activities to equipment, machines, or systems.

D. Definitions

1. Fungicides - Controls plant diseases.
2. Hazardous Chemicals - as *defined* by the Hazard Communication Standard (HCS), is any chemical which can cause a physical or a health hazard.
3. Herbicides - Controls weeds.
4. Highly Hazardous Pesticides - pesticides that are acknowledged to present particularly high levels of acute or chronic hazards to health or environment according to the GHS. In addition, pesticides that appear to cause severe or irreversible harm to health or the environment under conditions of may be considered to be and treated as highly hazardous.
5. Insecticides - Controls insects.
6. Pesticides - Chemicals that are used to eliminate pests and protect crops. The four most common pesticides are: insecticides, herbicides, fungicides, and rodenticides to control other pests such as rodents and birds.
7. Rodenticides - Controls other pests such as rodents and birds.

E. Responsibilities

1. FMD employees are responsible for the following:
 - a. Following the policies laid out in this program.
 - b. Completing required training on this program.
2. FMD managers are responsible for the following:
 - a. Notifying all employees of the purpose and intent of the Pesticide Management Safety Program.
 - b. Ensuring all employees complete required training.
 - c. Ensuring that all employees are following the policies laid out in this program.
 - d. Ensuring that employees have access to all necessary PPE.
 - e. Scheduling application of pesticides when weather is appropriate (i.e. rain is imminent or if wind could affect the spraying area).

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3. FMD Safety is responsible for the following:
 - a. Assisting in auditing this program when applicable and necessary.
4. OESO is responsible for the following:
 - a. Any and all necessary and/or required pick up of chemicals.

F. PPE

1. The following PPE is required when working with pesticides:
 - a. Eye Protection
 - b. Gloves
 - c. Any other PPE specified on pesticide's SDS
 - d. Long sleeves
2. Inspect all PPE before each use.

G. Control of Risk

1. Check all pesticide equipment before use to ensure proper working condition.
2. Read pesticide labels carefully. Follow the label direction when mixing, applying, storing, or disposing of pesticides.
3. Do not apply pesticides when rain is imminent or if wind could affect the spraying area.
4. If possible, prior to applying pesticides, inform all people in or around the application area.
5. Wear personal protective equipment (PPE) to prevent skin contact, inhalation, and mucous membrane exposure when handling pesticides (mixing, transporting, and applying). See section F.
6. When possible, handle pesticides downhill from wells, cisterns, sink holes, ditches, or standing water. Pesticides are made to apply outside so it would take a spill of significant volume for it to be a concern. If a significant spill occurs, immediately contact OESO-Environmental Programs at 919-684-2794
7. Do not eat, drink, or smoke when handling pesticides.
8. Do not transport, mix, or use pesticides unless you can call for help if needed.
9. Triple-rinse spray equipment and empty containers. Apply the rinse water to the treated field.
10. Once thoroughly rinsed, disposed of containers using regular means.
11. Wash hands thoroughly following pesticide use.
12. After shift working with pesticides, wash clothing and bathe to ensure that all chemicals are removed from clothing and skin.

H. Preparing to Apply Pesticides

1. Plan ahead- Always read chemical labels before attempting to work with pesticides. Prepare for a possible emergency by maintaining a personal decontamination site, a chemical spill kit, and by

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knowing the proper first aid procedures associated with your pesticide. This spill kit does not need to be with every applicator, but be ready and available in the event of a spill.

2. 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. In addition, never leave your vehicle unattended when transporting chemicals.
3. Select Application Equipment- Choose suitable equipment to properly apply pesticides. Before using the equipment, inspect it for good working order.

I. Mixing Pesticides

1. Always read and carefully follow label directions when mixing pesticides. Even if you are familiar with a particular chemical, reread the label to ensure that you have the latest safety information.
2. Work Area- The pesticide mixing and loading area should be well ventilated, and well lit; concrete slabs are ideal for mixing chemicals since they allow for easy cleanup.
3. Measure Chemicals Correctly- Measure and mix pesticides carefully. Do not use more chemical than prescribed by the pesticide label.
4. Pour Pesticides Carefully- Always wear eye protection and take care not to splash chemicals when pouring pesticides. Never use your mouth to siphon pesticides.

J. Applying Pesticides

1. Avoid Applying Pesticides in Sensitive Areas- avoid spraying pesticides near beehives or densely populated areas (e.g., student common areas, playgrounds, etc.). If you must apply pesticides in sensitive areas, plan to do so when population density is lowest and there is low wind (be mindful of wind direction).
2. Avoid Pesticide Drift, Runoff, and Spills

K. Site Storage

1. Temporary on-site storage:
 - a. Locate where flooding is unlikely.
 - b. Locate where runoff will not contaminate any water system.
2. Permanent pesticide storage:
 - a. Dry, well ventilated, separate room, building, or covered area with fire protection (e.g., dry chemical fire extinguisher).
 - b. Secured by fence and/or locked doors.
 - c. Signs on rooms/buildings to provide hazard warning.
 - d. Pesticide equipment should be properly labeled as contaminated and not removed from the site until decontaminated.
 - e. Proper decontamination area for personnel and equipment; dispose of contaminated water as excess pesticide; treat contaminated runoff collected as excess pesticide.

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L. Pesticide Storage and Disposal

1. Always try to use all the pesticide in your application tank. If pesticides remain, use them on other target locations. After emptying the tank, clean and store the equipment.
2. Never pour unused pesticides down sink or floor drains, storm drains, or into surface water.

M. Training

1. Employees shall be made aware of this program's contents and specific requirements by either an FMD safety representative or their manager.
2. Training will be conducted upon hire or as-needed. This shall include when new equipment is introduced into the workplace, procedures change, and/or the work area changes.
3. Training for all new employees should be completed within 10 days of employment.

N. References

1. Pesticide Safety Program, EHSRM Dept. Texas State University
2. Occupational Safety and Health Administration
3. Environmental Protection Agency

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