

# BGSU

**Bowling Green State University**



## **Pesticide Safety Program**

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# INTRODUCTION

## Objective

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Bowling Green State University is committed to providing a safe and healthful work environment for our entire staff. In pursuit of this goal, the following pesticide safety program is provided to minimize occupational exposure to pesticides. This Standard will be implemented at both the University's main campus as well as the Firelands College branch campus in Huron, Ohio.

The objective of this document is to set forth the policies of Bowling Green State University with respect to the use of pesticides, fungicides, insecticides, and herbicides. This plan is to provide an awareness to the use of pesticides and inform employees how to do so in compliance with Federal and State regulations. The policies apply to individuals who will be expected to perform job tasks or field work using pesticides. This program provides basic information on:

- What pesticides are;
- the potential hazards posed by using pesticides;
- how to apply pesticides safely and properly;
- understanding the regulations that define the responsibilities of the University; and,
- control measures to minimize exposure to pesticides.

## Introduction

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Pesticides are defined as any chemical that is applied for the removal of noxious weeds, terrestrial and aquatic pests, and other insects or organisms that are harmful to cultivated plants or animals. Broadly, pesticides can be generalized into these categories: insecticides, fungicides, herbicides, rodenticides, bactericides, and larvicides. In the State of Ohio, the Ohio State University Extension, in partnership with the Ohio Department of Agriculture, manages the regulations and policies that provide guidance on the safe, proper, and legal use of pesticides. As defined in the Commercial Pesticide Applicator regulations, Bowling Green State University is responsible to meet these regulations and guidelines due to its designation as a school and a government agency. The following procedures in this document will outline the efforts Bowling Green State University has chosen to take to meet these Commercial Pesticide Applicator requirements.

The general regulations regarding the responsibility as a Commercial Pesticide Applicator is outlined on the Ohio State Agricultural Extension webpage for the Pesticide Safety Education Program. Highlighted requirements from these regulations include: at least one trained and certified Commercial Pesticide Applicator who is passed the requirements for the general exam and at least one restricted use category. If more than one restricted use category is performed at Bowling Green State University, a certified Commercial Pesticide Applicator must be certified in one of each of the necessary categories listed. Categories that may be relevant to BGSU include: Horticultural Pest Control, General Aquatic Pest Control, General Forest Pest Control, Industrial vegetation, Ornamental Plant and Shade Tree Pest Control, Turf, and Animal Pest Control. Additionally, applicators of pesticides do not all need to be certified through the Ohio Agricultural Extension's Office. Per the Ohio State University Agricultural Extension's webpage, "A trained serviceperson is an applicator who works under the direct supervision of a licensed commercial pesticide applicator who is employed by the same company or agency. The trained service person must be instructed in the proper use of equipment and pesticides that will be used on the job."

To meet the requirements as a Trained Serviceperson, they must review the OSU Bulletin 863 and documentation must be completed using page six of the document. This training must be conducted by the Direct Supervisor, who holds the Ohio Commercial Applicators License, and the Direct Supervisor must be able to competently demonstrate the instruction and control to the Trained Serviceperson. Additionally, once the training is completed, the Trained Serviceperson can only apply pesticides if the Direct Supervisor is within 25

miles or available within 2 hours when a pesticide application is being made. The Direct Supervisor and the Trained Serviceperson must be employed by BGSU, per Ohio Department of Agriculture regulations.

## **Controls**

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To ensure everyone's safety, pesticides should only be used by those who are trained and have reviewed this program. In addition, practicing proper chemical hygiene is pertinent to ensure pesticides are secure and not tampered with by unauthorized personnel. The storage of pesticides should follow the procedures for chemical storage outlined in the BGSU Lab Safety and Chemical Hygiene Guide. This includes, the room or building should be kept secure under lock and key, pesticides should be stored based on hazard class, and access of these areas by unauthorized personnel should be continuously monitored by authorized personnel.

Additionally, emergency contacts should be posted within the pesticide storage areas in case an accident were to occur. This emergency contact list should provide names of Direct Supervisors/Commercial Pesticide Applicators, Department supervisors, BGSU Police, and Environmental Health and Safety. A template for the emergency contact list can be found on the EHS webpage under "Lab Safety" and should be updated at least once a year to ensure personnel listed is accurate.

## **Standard Operating Procedures (SOPs)**

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Standard Operating Procedures (SOPs) for pesticides are required to be recorded and kept on file for every chemical used to ensure that safe procedures and processes are developed. The SOP will include: where the process will occur, what chemical(s) will be used during the process, how waste will be disposed, Personal Protective Equipment (PPE) required, designated area of use, special handling and storage requirements, spill procedures, and emergency contacts. A template for creating a SOP can be found on the EHS webpage.

Although specific SOPs will differ based on the chemical being applied, there are a few general SOPs that should be practiced when applying any pesticide. Safety Data Sheets (SDS) must be available in the field, as well as in the chemical storage area. If utilizing ChemWatch, the applicator still needs to have a physical copy of the pesticide label and SDS when applying pesticide to ensure proper concentrations, targeted pests, and recommended PPE are being utilized. Additionally, a copy of the SOP should be on-hand while applying pesticide to ensure that the authorized individual has guidance on how to perform the task.

Eating, drinking, smoking, or applying cosmetics should not occur while handling or applying pesticides. This poses significant health risks as it increases the chance of ingesting the chemical(s). Washing arms and hands with soap and water after handling or applying pesticides also reduces the chance of contamination or ingestion. When cleaning out pesticide containers or sprayers, a triple-rinse method is the industry standard. Make sure the container is filled with water and dumped in a safe location three times before letting it air-dry. If containers are swapped out to dispense different types of pesticide (broad-leaf and systemic, for example) it may be recommended to wash more to ensure contamination does not occur.

When spraying liquid pesticides, especially when working with ornamental plants or turf, ensuring that you are spraying with your back to the wind is a best practice that will minimize drift or destroying non-targeted vegetation. It is highly recommended to only spray liquid pesticides on non-windy days to prevent drift.

## **Personal Protective Equipment (PPE)**

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Personal Protective Equipment (PPE) is the last line of defense from pesticides getting in contact with your body. All PPE should be used in accordance to BGSU PPE guidelines. When applying pesticide, it is required

to wear long pants, long-sleeved shirts, socks, and shoes when applying. Gloves are also required; however, the type of material may differ based on the type of pesticide that is being applied.

If spraying pesticide over-head, additional PPE may be required, including, but not limited to, hoods and coveralls. Safety glasses do not prohibit exposure to chemicals – safety goggles must be worn when working with any pesticide. If respirators are required to be worn per the pesticide label and SDS, the Department of Environmental Health and Safety must be contacted for more information and training before performing work. Respirators are most commonly worn when dispensing solid pre-emergence pesticides.

## **Training**

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As described in the Introduction, training is required to apply pesticides. The type of training is dependent on your role and responsibilities with the program.

**Direct Supervisor/Certified Commercial Pesticide Applicator:** must complete examination and certification process through the Ohio Pesticide Education Program. This includes passing the general exam and an exam for at least one restricted category. In addition, recertification of this license requires 5 hours of recertification credits every 3 years. The specific requirements are outlined on the Ohio State Agricultural Extension's webpage for Commercial Pesticide License Requirements.

**Trained Serviceperson:** must complete training with the Direct Supervisor, who holds the Commercial Pesticide License, using the OSU Bulletin 863. Trained Serviceperson must also conduct hands-on training with the guidance of the Direct Supervisor. Documentation of this training can be fulfilled by filling out page 6 of the Bulletin and must be kept on-file for the employee's term of employment.

## **Works Cited**

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“Pesticide Safety Education Program.” Pesticide Safety Education Program, 2019, [pested.osu.edu/](http://pested.osu.edu/).

BGSU Lab Safety and Chemical Hygiene Guide.