SAFETY TRAINING GUIDE

FOR

TRAINED SERVICEMEN

A Guide for Non-Certified Pesticide Handlers

OHIO DEPARTMENT OF AGRICULTURE

OHIO STATE UNIVERSITY EXTENSION
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Calibration of Hand Sprayers for Herbicide Application. OSU Extension Bulletin F.20
A Study Guide for Commercial Turfgrass Applicators. OSU Extension Bulletin 841-8

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# Table of Contents

Introduction .................................................................................................................. 1

Unit 1 Pesticide Exposure ............................................................................................ 7

Unit 2 Signs and Symptoms of Poisoning .................................................................. 10

Unit 3 Emergency First Aid ....................................................................................... 12

Unit 4 Other Health Effects ....................................................................................... 16

Unit 5 Personal Protective Equipment (PPE) ............................................................... 18

Unit 6 Respirators ..................................................................................................... 22

Unit 7 Pesticide Labels .............................................................................................. 27

Unit 8 Transporting Pesticides .................................................................................. 33

Unit 9 Storing Pesticides .......................................................................................... 34

Unit 10 Mixing and Loading Pesticides .................................................................... 35

Unit 11 Applying Pesticides ...................................................................................... 38

Unit 12 Cleaning Up Pesticide Spills ........................................................................ 41

Unit 13 Cleaning Pesticide Containers ..................................................................... 44

Unit 14 Disposing of Pesticides and Pesticide Containers ........................................ 46

Unit 15 Cleaning Up .................................................................................................. 48

Unit 16 Laws and Regulations ................................................................................... 52
INTRODUCTION

Pesticides are chemicals that control pests. They include --

♦ Insecticides for insects.
♦ Herbicides for weeds.
♦ Fungicides for plant diseases.
♦ Pesticides for other pests, such as rodents and birds.

Pesticides vary in the ways they control a pest. They can kill the pest, inhibit its growth, affect pest reproduction, or serve as a barrier to the pest.

Unfortunately, pesticides can also hurt people, pets, other animals, and the environment if they are not used carefully and according to label directions.

By law, your employer must provide you with label directions and equipment necessary to make a safe application. But your employer cannot do the whole job. You need to learn as much as you can about pesticides and how to protect yourself and others. The Ohio Pesticide Law requires that trained servicemen receive some basic training in the safe use of pesticides before their first occupational exposure to these compounds.
the environment.

become sick or injure yourself, others, or

could come in contact with a pesticide and

During any of these activities, you

Act as a Leader:

them, such as containers,

materials with pesticides in

Dispose of pesticides or

Equipment:

pesticides into application

Mix, load, or transfer

pesticide residues.

or hobbies — that may contain

sprayers, backpack sprayers,

equipment — such as boom

pesticide application

Clean, repair, or maintain

applications.

assist with pesticide

Apply pesticides.

If you commercially:

You must be a Trained Serviceman

person must be trained.

pesticides is called a serviceman and this

manual, a noncertified commercial user of

pesticide law, and therefore in this

refer to you as applicators. In the Ohio

techinicians or pesticide handlers. Others

Some of you call yourselves
Therefore, it is important for you to receive training in how to --

- Deal with the health hazards associated with pesticide exposure.

- Recognize signs and symptoms of pesticide exposure.

- Respond to emergencies involving pesticides (first aid, spill cleanup).

- Wear, use, and maintain personal protective equipment (for example, goggles, respirators, and gloves).

- Read and understand information on a pesticide label.

- Safely transport, mix, load, store, apply, and dispose of pesticides.

- Safely operate mixing, loading, application, and pesticide-transfer equipment.

- Comply with Federal and State Laws which regulate the safe use of pesticides.
Alternative Training

Some employers already provide excellent training for their servicemen. If your training program meets the Criteria for Trained Servicemen (listed on the next page), and it is provided before your employee's first occupational exposure to pesticides, then you do not have to use this manual. This manual is provided as a training tool for those companies and agencies which would otherwise have difficulty in meeting this obligation.

Agricultural Handlers

Training for agricultural pesticide handlers is already required under the EPA Worker Protection Standard (WPS) covers those who work in fields, orchards, greenhouses, or nurseries.

The WPS criteria for training handlers are similar to the requirements under the Ohio Pesticide Law for training servicemen. Therefore, any agricultural pesticide handler already trained under the Ohio Pesticide Law is not required to also undergo the WPS training. However, if your company has not employed any Ohio Pesticide Law servicemen, then all newly hired handlers must also receive some basic training about the use of pesticides. The content of this training is outlined in the Criteria for Trained Servicemen which follows on the next page. Unit 16 of this manual can serve as the resource for this extra training required of agricultural handlers.
CRITERIA FOR SERVICEMAN TRAINING

Training for servicemen must include at least the following information:

- Format and meaning of information on pesticide labels and in labeling, including safety information such as signal words and precautionary statements about human health hazards.

- Hazards of pesticides resulting from toxicity and exposure, including acute effects, chronic effects, delayed effects, and sensitization.

- Routes through which pesticides can enter the body.

- Signs and symptoms of common types of pesticide poisoning.

- Emergency first aid for pesticide injuries or poisonings.

- Routine and emergency decontamination procedures including eye flushing technique.

- Need for and appropriate use of personal protective equipment.

- Safety requirements for handling, transporting, storing, and disposing of pesticides, including general procedures for spill cleanup.

- Environmental concerns such as drift, runoff, and wildlife hazards.

- Explanation that trained servicemen are regulated by USEPA and Ohio Department of Agriculture. Explanation of FIFRA and the Ohio Pesticide Law (OPL).

- Explanation of selected aspects of FIFRA and OPL, including:
  - Registration of pesticides
  - The Label is the Law
  - Restricted Use versus General Use products
  - Responsibility of trained servicemen
  - Penalties for illegal use of pesticides or noncompliance with laws
  - OPL recordkeeping requirements
  - OPL off-site pesticide movement regulations
  - OPL property damage and human health problem reporting requirements
  - OPL safe equipment operating requirements
  - OPL direct supervision and serviceman training requirements
An employer must be able to verify that the serviceman training has been given and that it has conformed to the criteria established by ODA. The bottom part of this page may be used for this purpose. The trained serviceman should fill out and sign the form. It can then be detached and held in the employee's personnel file for future reference.

Employee name ____________________________________________
(please print)

- By signing this form, I attest that I have been given basic pesticide safety training.

- This training covered all criteria as outlined in the introduction to the Ohio Department of Agriculture publication, "Safety Training Guide for Trained Servicemen".

- This training was given prior to my first occupational exposure to pesticides for this employer. (In the case of an existing employee, the training was given during the grace period established by the Ohio Department of Agriculture.)

Training Resource (check one or more)

_____ ODA's "Safety Training Guide for Trained Servicemen"

_____ USEPA agricultural handler manual, "Protect Yourself from Pesticides - Guide for Pesticide Handlers"

_____ Other materials developed by employer

Employee
Signature___________________________ Date ________________

Supervisor
Signature___________________________
UNIT 1 PESTICIDE EXPOSURE

Objectives

After this section, you should be able to --

♦ Name places where you are likely to find pesticide residues.
♦ Identify four ways that pesticides can enter the body.
♦ State how you are most likely to be injured by pesticides.
♦ Give five examples of when to wash so that you avoid getting pesticides in your mouth.

Opening Questions

Have you ever splashed pesticide on yourself? How did it happen?

Where do you take a break at work? Is it near an area where pesticides are mixed, loaded, used, or stored?

The best way to protect yourself is to keep pesticides from getting on or in your body.

Watch out for --

♦ Splashes and spills.
♦ Sprays and dusts from pesticide applications.
♦ Residues, which are pesticides that remain on plants, soil, other surfaces, or in the air after an application. Every pesticide application leaves a residue -- sometimes for a short time, other times longer.

A pesticide can poison or injure you--

♦ If you swallow it.
♦ If it gets in your eyes.
♦ If you breathe it.
♦ If it gets on your skin.
<table>
<thead>
<tr>
<th>Eat</th>
<th>Drink</th>
<th>Chew gum</th>
<th>Use tobacco</th>
<th>Put on makeup</th>
</tr>
</thead>
</table>

- **When you handle pesticides or work in areas where pesticides have been applied, wash your hands with soap and water every time you take a break. Leave the area where pesticides are located and wash your hands and face before you eat, drink, chew gum, or put on makeup.**

- **If you don't, you may wipe pesticides that are on your hands or face into your mouth and swallow them.**

- **Because pesticides can enter your body through your eyes and skin, you should avoid wiping your eyes, face, and neck when you have been handling pesticides. It is also important to wash your hands before using the toilet.**

- **Tobacco and food absorb pesticides, so don't carry them with you while you work. Leave them someplace where pesticides won't get on them.**

- **If pesticides get on or in your body, they may make you sick. The largest amount of exposure is usually to the skin, especially the hands, forearms, and face. Pesticides can enter the body and face even through cuts and wounds in the skin.**

- **Breathing in of pesticides is probably the second largest way to be exposed. This often causes minor symptoms (headache, nausea, etc.) of pesticide exposure.**
Suggested Review and Discussion

1. Where could pesticide residues be?

2. How can pesticides enter your body?

3. How are you as a trained serviceman likely to be exposed to and harmed by pesticides?

4. How often should you wash your hands when working with pesticides?

5. Before what activities should you wash your hands after working with pesticides?

6. Name two items not to carry with you (in your pocket) when working with pesticides.

Remember: Wash your hands and face before you --

♦ Eat.
♦ Drink.
♦ Chew gum.
♦ Use tobacco.
♦ Put on makeup.
♦ Use the toilet.
These pesticides pose a serious threat to health and safety. People who have been poisoned by these pesticides may experience symptoms such as rashes, nausea, vomiting, dizziness, and other symptoms. These pesticides can also cause skin irritation and respiratory problems.

Some pesticides can make you feel ill several hours after exposure. You may feel sick very quickly if you are exposed to pesticides.

What did you do about it? What part of your body was affected? Which part of working around pesticides?

Have you ever felt sick while opening questions?

Pesticide poisoning:

- Responsive to possible pesticide exposure
- List the steps to follow in

Pesticide poisoning:

- Name different symptoms of

After this section, you should be able to:

Objectives

POISONING

SYMPTOMS OF

UNIT 2 SIGNS AND

10
When you are working with pesticides, if you feel dizzy or sick or have trouble breathing:

1. Stop what you are doing right away.

2. Start following the emergency first aid procedures list on the pesticide label to control the pesticide’s harmful effects.

3. Call your boss if possible or a co-worker for help.

4. Have someone drive you to an emergency medical center if necessary.

Remember: These symptoms can be signs of pesticide poisoning:

- Tiredness or dizziness.
- Headaches or blurred vision.
- Sweating too much.
- Pains in your chest or trouble breathing.
- Throwing up.
- Stomach cramps or diarrhea.
- Skin rashes.
- Eye irritation.

Suggested Review and Discussion

1. Name the symptoms that may be signs of pesticide poisoning.

2. Name four things you should do if you have signs of pesticide poisoning.

3. What are emulsifiable concentrates (ECs) and how can they harm you?

4. Are pesticides in the form of gases harmful?
### UNIT 3 EMERGENCY FIRST AID

#### Objectives
After this section, you should be able to:

- Locate emergency information at work: (1) the name, address, and telephone number of the nearest emergency medical center and (2) first aid directions.
- Explain why it is important to read the pesticide label before working with pesticides.
- Explain what to do if you:
  - Get a pesticide in your eyes.
  - Get a pesticide on clothes or skin.
  - Breathe a pesticide.
  - Swallow a pesticide.
- Tell how to help a co-worker who shows signs of poisoning from breathing a pesticide.
- Tell what information to give the doctor when calling about someone who may be poisoned by a pesticide.

#### Opening Questions
- Have you ever known co-workers who got pesticides on their clothes or on their skin? What did they do? Did you help them? How?
- Do you know where to find the name, address, and telephone number of the nearest emergency medical center?
The name, address and telephone number of the nearest place to get emergency medical help should be posted at the place where you work. Be sure you know ahead of time where this emergency information is located so that you can get help for yourself or others quickly in an emergency.

All pesticide labels have an emergency first aid section. Read it or have someone explain it to you before you handle the pesticide. You should know the emergency first aid procedures before you need to use them. If you do the wrong thing in an emergency, it could make you even sicker.

If pesticide gets in your eyes, rinse them right away with an eyeflush kit or allow a gentle stream of clean water to flow across them. Hold your eyelids open and keep rinsing your eyes for about 15 minutes.

and water. The faster you act the less likely you are to get sick or be harmed. Towels and a clean change of clothing, in addition to soap and water, should be available near the pesticide handling site.
If you swallow some pesticide, it is essential to follow the first aid directions on the pesticide label. In particular, the label will tell you whether or not to make yourself throw up. The best way to induce vomiting is to put a finger to the back of your throat. Labels for some pesticides tell you not to induce vomiting. These pesticides are corrosive and will cause further damage if you try to vomit. If you are helping someone who has swallowed pesticides, never induce vomiting if the person is unconscious or having convulsions.

Get someone to take you to the doctor.

If you spill a concentrate or a lot of diluted pesticide on your skin, immediately rinse it with water.
If you find it difficult to breathe.

If your skin shows signs of burning.

If you feel ill and think you may have pesticide poisoning.

Have someone call ahead to tell the doctor the brand name or common name and the EPA registration number of the pesticide and how you were exposed. The doctor needs these facts to decide how to help you. If possible, take a copy of the pesticide label with you.

**Suggested Review and Discussion**

1. Where should you find the name, address, and telephone number of the nearest emergency medical center?

2. Where can you find first aid information about a pesticide?

3. Why should you read the label before working with a pesticide?

4. Name four items that servicemen should have to help them get pesticides off their skin.

5. What should you do if pesticide gets on your clothes or skin?

6. What should you do if pesticide gets in your eyes?

7. What should you do if you breathe in a pesticide?

8. What emergency first aid treatment should you give a co-worker who has breathed in a pesticide?

9. What should you do if you swallow a pesticide?

10. When should you not induce vomiting?

11. When should you have someone take you to a doctor?

12. What will the doctor need to know right away?

13. If possible, what should you take with you to the doctor?
UNIT 4 OTHER HEALTH EFFECTS

Objectives

After this section, you should be able to --

♦ Name three symptoms of allergic reaction to a pesticide.

♦ Identify the possible long-term effects of pesticide poisoning.

♦ Recall the critical safety rule to follow when handling pesticides.

Opening Questions

Do you find that you are more sensitive to some pesticides than you are to others? If so, how does your body react when you are working with these pesticides? What can you do to prevent the reaction?

Do you know anything about scientific studies on animals and their exposure to pesticides?

Have you heard anything about long-term effects of pesticide exposure on people?

Some people are allergic to certain pesticides. They may get a severe skin rash when the pesticide touches their skin. Or they may sneeze and have a runny nose and itchy eyes when they are near the pesticide. If a pesticide affects you this way, try wearing some extra protection (gloves, respirator, etc.). If these symptoms continue, you may have to stay away from that particular pesticide.

Allergic reactions may not occur on your first or second exposure to a particular pesticide. However, your body may become sensitized to that pesticide, and if you are exposed to that pesticide again, you may experience an allergic reaction.
Some harmful effects from pesticides do not show up for a long time. Studies on laboratory animals show that some pesticides may cause cancer, permanent harm to body systems, miscarriages, or birth defects.

Scientists cannot always know about the long-term effects of pesticides on human beings, so don’t take any chances. When you handle pesticides, or when you work in areas where pesticides have been applied, do everything you can to keep them from getting on or in your body.

Suggested Review and Discussion

1. What are the symptoms of an allergic reaction to pesticides?

2. What are possible long-term effects of pesticide contamination as shown in studies of animals?

3. How can you protect yourself from long-term effects of pesticides?
### UNIT 5 PERSONAL PROTECTIVE EQUIPMENT

<table>
<thead>
<tr>
<th>Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explain the purpose of personal protective equipment (PPE).</td>
</tr>
<tr>
<td>State what the law requires you to do with PPE.</td>
</tr>
<tr>
<td>Name seven types of PPE.</td>
</tr>
<tr>
<td>Tell what to do before putting on PPE.</td>
</tr>
<tr>
<td>Explain what to do if PPE is damaged or worn.</td>
</tr>
<tr>
<td>Identify the kinds of protective clothing often required in addition to PPE.</td>
</tr>
<tr>
<td>Give nine rules for wearing PPE.</td>
</tr>
</tbody>
</table>

### Opening Questions

- What kind of PPE do you usually wear? How do you take care of your PPE?

---

<table>
<thead>
<tr>
<th>Personal protective equipment (PPE) helps to keep pesticides from getting on or in your body. Your employer should provide you with all the PPE listed on the pesticide label for the job that you will be doing. You are required by law to wear it and use it correctly. PPE may include:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gloves.</strong></td>
</tr>
<tr>
<td><strong>Boots or shoe covers.</strong></td>
</tr>
<tr>
<td><strong>Coveralls.</strong></td>
</tr>
<tr>
<td><strong>Hoods or wide-brimmed hats.</strong></td>
</tr>
<tr>
<td><strong>Aprons.</strong></td>
</tr>
<tr>
<td><strong>Protective eyewear: goggles, face shields, or safety glasses with side and brow guards.</strong></td>
</tr>
</tbody>
</table>

See Unit 6 for details.
In addition, many pesticide labels require the use of protective clothing, which may be long-sleeved shirts and long pants with shoes and socks.

PPE can be made from many different materials. If the pesticide label does not specify which material to use, choose PPE that is chemical resistant. Chemical resistant PPE can be made out of barrier laminate, PVC, or rubber (nitrile, butyl, natural rubber, or neoprene). These materials are also waterproof. They are good choices for gloves, footwear, aprons, and hats.

Do not wear cotton gloves when you are handling pesticides unless the pesticide label specifically says to use them. Never use leather gloves when handling pesticides because leather absorbs pesticides and cannot be washed clean.

PPE must be clean and ready to use. Before and during use, look for tears, holes, or other defects or signs of excessive wear, such as differences in color. If you find a problem with a piece of equipment, ask your employer to replace it.

Here are nine easy rules for wearing PPE correctly:

♦ Keep your pant legs over the top of your boots so pesticide won't run down into your boots.

♦ Wear chemical-resistant gloves that reach at least halfway to your elbow.

♦ If you are applying pesticides on the ground, wear your sleeves over the outside of your gloves so that pesticides will not run down into the gloves.
If you are spraying above your shoulder, wear your sleeves inside your gloves. Also, choose loose-fitting clothes for comfort and protection. Also wear a coverall over your regular work clothes to give your body good protection against most pesticides. Use a chemical-resistant apron to keep splashes and spills from soaking your coverall. While you are mixing and loading pesticides, button your collar at the neck to keep pesticides from getting inside your clothes. If your hood is separate from your coverall, keep the hood's bottom edges outside the coverall to protect yourself from pesticide runoff.
While you are working, pay attention to your PPE. If your gloves, apron, or boots get holes in them, stop work right away and replace them. If the pesticides get through the damaged equipment to your skin, wash first, then put on clean equipment.

**Suggested Review and Discussion**

1. What is the purpose of PPE?
2. How will you know what PPE to wear?
3. What does the law require you to do with PPE?
4. What kinds of PPE do trained servicemen wear?
5. What kinds of protective clothing may also be required?
6. What should you do before putting on PPE and also while you are working?
7. What should you do if you see that the PPE is damaged or torn?
8. What are nine rules for wearing PPE?
9. What should you do if pesticides get through your PPE onto your work clothes?
UNIT 6 RESPIRATORS

Opening Questions

- How many different types of respirators are used at your workplace?
- If so, which types do you use?
- Do you use respirators at work?

Objectives

- Front cover
- Back cover

Respirators

Respirators are devices that allow you to breathe in a clean, filtered air.

Opening Questions

- How many different types of respirators are used at your workplace?
- If so, which types do you use?
- Do you use respirators at work?

Objectives

- Identify the different types of respirators.
- Describe how to select and use the appropriate respirator.
- Explain the importance of proper fit and how to determine if a respirator is adequate.
- Discuss the importance of proper maintenance and care of respirators.

Respirators and their uses

- Respirators for dust and particulate matter
- Respirators for gases and vapors
- Respirators for organic vapors
- Respirators for combinations of contaminants

Respirator selection

- NIOSH-approved respirators
- Selective respirators
- Combination respirators

Respirator fit testing

- Qualitative fit testing
- Quantitative fit testing

Respirator maintenance

- Cleaning and decontamination
- Replacing cartridges and filters

Respirator training

- Annual training
- Emergency use

Respirator disposal

- Proper disposal
- Ensuring cleanliness
The illustrations on these pages show different types of respirators. Styles include--

- Dust/mist filtering respirators.
- Chemical cartridge respirators.
- Canister respirators.
- Supplied-air respirators.
- The self-contained breathing apparatus (SCBA).

**Dust/Mist filtering respirators** offer protection from small particles in the air. They cover the nose and mouth to filter out dusts, mists, powders, and particles. These respirators have MSHA/NIOSH approval prefix TC-21C.

**Chemical cartridge respirators** use cartridges that contain chemicals to remove dusts and mists and to absorb harmful vapors or gases. Chemical cartridge respirators for use with pesticides have MSHA/NIOSH approval number prefix TC-23C. This type of respirator can have either a half-face or a full-face mask. Powered air-purifying respirators (PAPRs) may reduce respiratory stress and heat stress.

Half-Face Respirator
SCBA is TC-13E.

NOSH approval number prefix for the

oxygeen deficiency. The MSHA

protection against toxic gases and

tank and provides complete respiratory

apparatus. SCBA uses an oxygen

The self-contained breathing

respirator is TC-19C.

approved number prefix for this type of

Compressor, The MSHA/NOSH

respirators have a blower of

mask. Some (but not all) supplied-air

long hose to supply air to a full-face

Supplied-air respirators use

Canister Respirator

Full-Face Respirator

From 12 to 60 minutes, depending on

canister respirator is short, usually

mands from the air. The lifespan of

designed to remove specific contam-

inators or gases. These respirators are

dusts and mists and to absorb harmful

cansiers contain materials to remove

approved number prefix TC-14G. The

cansiers have MSHA/NOSH

with chemicals have MSHA/NISH

Powered air-pumping respirator
If you have to wear a respirator, have someone show you how to use it first.

To work correctly, most respirators must fit your face tightly around the edges.

Every time you put a respirator on, check to be sure it forms a complete seal around your face so that air cannot leak in or out at the edges of the respirator.

Most respirator styles won’t protect you if you have a beard or other facial hair that loosens the seal. If you have facial hair, you can protect yourself only by using hood or helmet-style respirators that are specifically designed to supply you with fresh air, for example, a powered air-supplying respirator.

If you are wearing a respirator that filters out dusts and mists, **change the filter or respirator** when you find it hard to breathe through the respirator, or if your filter gets torn or damaged or very wet.

If you are wearing a respirator that removes vapors or gases, **change the cartridge or canister immediately** if you taste or smell pesticide, or you feel the pesticide burning or stinging your nose or throat.

Follow the manufacturer’s instructions on when to replace filters, cartridges, and canisters even if you don’t notice a problem. If there are no instructions, then filters, cartridges, and canisters should be replaced at the end of each day’s work period.
Your employer should help you determine how often these parts need to be replaced parts for you.

Suggested Review and Discussion

1. Name the different types of respirators.
2. How must a respirator fit to be effective?
3. If you have a beard or other facial hair, what problem can occur when fitting the respirator? How can you solve the problem?
4. What general rule should you follow about replacing filters, cartridges, and canisters?
5. When should you change the filter on a respirator that protects you from mists and dusts?
6. When should you change the cartridge or canister in a respirator that removes vapors and gases?
UNIT 7 PESTICIDE LABELS

Objectives

After this section, you should be able to--

♦ Name two important sources of information about pesticides

♦ Explain the meaning of the signal words Caution, Warning, and Danger.

♦ Tell the meaning of the skull and crossbones symbol.

♦ Name the major sections of the pesticide label and tell what kinds of information are in each section.

Opening Questions

How often do you read pesticide labels? Why do you read them?

Have you ever had difficulty finding information on a pesticide label? What were you looking for? How did you finally get the information?

Are some pesticide labels harder to understand than others?

There are two important places to get information about the pesticides you will be handling -- from the pesticide label and from your employer.

Your employer should make sure you have all the information you need from the pesticide label. Even so, it is a good idea to study the label yourself.

The pesticide label has a number of major sections that you should be familiar with.

**Brand Name, Ingredients, and Type of Pesticides**

Look on the front of the label for the brand name of the pesticide. It is usually in large bold print. Directly below the brand name is the list of chemicals or active ingredients, the percentage of each active ingredient, and the inert ingredients. *Active ingredients* is the term for the ingredients that kill or control the pest. *Inert ingredients* don’t work against the pest; they usually improve the product by making it spray out easily, stay on the plant, etc.
Be sure to look at the signal word. If the signal word is "Danger," tell you how to use the product properly. The signal words -- "Caution," "Warning," or "Danger" -- are an important part of the label.

Also, on the front of the label is the type of pesticide -- insecticide, fungicide, herbicide -- or other kind of pesticide. The name is familiar to you.

The EPA registration number for the pesticide is on the front of the label.

The EPA registration number for this product is XX-XXXXXX.

Sample label:

The type of pesticide is X. The signal word is Y.

Type of pesticide: X.

Signal words and symbols:

Also, on the front of the label is the type of pesticide -- insecticide.

The EPA registration number for the pesticide is on the front of the label.

The EPA registration number for this product is XX-XXXXXX.
The word *Caution* is used for pesticides that are the least poisonous. These pesticides can still harm you if you are not careful.

A pesticide with the word *Warning* is more poisonous or irritating than those with a *Caution* label. It doesn’t take much of this pesticide to make you sick or to irritate your skin or eyes.

The word *Danger* means that the pesticide is very poisonous or irritating. Even a small amount (often less than a teaspoon) can cause serious harm. The labels of the products that can severely burn your skin or eyes carry the signal word *Danger* alone.

Along with the signal word *Danger*, some labels have a *skull and crossbones* and the word *Poison* printed in red ink. These pesticides are highly poisonous. They can make you very sick -- or even kill you -- if you are not careful.

**Statement of Practical Treatment and Precautionary Statements**

Under the Statement of Practical Treatment, read what you should do if you swallow or inhale the product, or get it on your skin or in your eyes. This is the first aid section.

On some labels a Note to Physician gives information on symptoms and treatment of poisoning. If you need medical treatment, it is important to bring a copy of the pesticide label with you so the doctor can treat you properly.

An emergency phone number to call in case of spills and exposure accidents is also listed.

Look under the Precautionary Statements to determine which parts of your body need special protection. Some labels tell you that the pesticide will burn your eyes or skin if it gets on them. Other labels tell you not to breathe the pesticide or not to get it on your skin.

Along with these warnings, the label must tell you if you need to wear PPE when you handle the pesticide.

Under the Environmental Hazards section, you can find out whether you must take extra care to protect certain wildlife or to keep the pesticide out of groundwater or surface water.
### Directions for Use

The Directions for Use section lists information on storage, disposal, mixing, loading, and application. The sites (homes, warehouses, restaurants, crops, animals, etc.) to which a pesticide can be applied are listed in this part of the label. The allowed method of application (crack and crevice, broadcast, spot, ULV, etc.) and the rate of application will also be listed in this part of the label.

### Sample Label

- **Signal words:**
  - Warning
  - Danger
  - Poison
- **First aid directions:**
  - Call a Poison Control Center or doctor immediately.
  - Adult: 1-800-222-1222
  - Child: 1-800-222-1222
- **Symptoms and treatment of poisoning:**
  - Symptoms:
    - Nausea
    - Vomiting
    - Dizziness
  - Treatment:
    - Call a Poison Control Center or doctor immediately.
    - If on skin, wash with soap and water.
- **PPE:**
  - Gloves
  - Eye protection
- **Hazard category:**
  - Category II
  - Category III
- **Natural pyrethrum:**
  - A natural insecticide derived from chrysanthemum flowers.
- **Description of use:**
  - For use in and around homes, warehouses, restaurants, and crops.

### AGRICULTURAL USE REQUIREMENTS

- **Precautionary statements:**
  - For use by adults only.
  - Keep out of reach of children and pets.
- **Restrictions:**
  - Not for use on food or animal contact areas.
  - Not for use in child care facilities, nurseries, or day care centers.
- **Environmental hazards:**
  - Avoid spraying near streams, ponds, or bodies of water.
  - Prevent drift onto or into adjacent properties.
- **Storage and disposal:**
  - Store in a cool, dry place.
  - Dispose of containers and unused product in an environmentally safe manner.

### Active ingredients:

- [List of active ingredients]
Reentry intervals will often be stated. Keep children and pets off surfaces until spray has dried is a common type of reentry restriction. For agricultural products, the reentry interval is called a restricted-entry interval (REI), and is intended for the protection of agricultural workers.

Some product labels will have an Agricultural Use Requirements section which lists specific requirements when these pesticides are used on farms, forests, greenhouses or nurseries. These requirements are part of the USEPA Worker Protection Standard for protection of agricultural workers. Other types of servicemen and workers are not covered by this standard, but may have similar protections.

VIP DEPESTOP UVM
Organophosphorus Insecticide

ACTIVE INGREDIENTS:
gabacfos-C (0,3-diol methyl phosphonates)
30.0%
pyrophosphates
1.0%
INERT INGREDIENTS:
79.0%
TOTAL:
100.0%
Containe ome de toxic delevors.

KEEP OUT OF REACH OF CHILDREN
DANGER
PELIGRO

Name and Address of Manufacturer
You can obtain further information about the pesticide that you are using from the manufacturer of the pesticide. The name and address of the manufacturer is listed on the pesticide label.

Information on storage, disposal, mixing, loading, and application

DIRECTIONS FOR USE
Leernes palmer de water, consermons aplicando el holl nie, use the application method as shown on the label. Do not use near water bodies, fish ponds or streams. Do not use in the presence of sensitive crops or plants. Do not use on or near crops or plants that are not listed on the label. Do not use near water bodies, fish ponds or streams. Do not use in the presence of sensitive crops or plants. Do not use on or near crops or plants that are not listed on the label.

AGRICULTURAL USE REQUIREMENTS
Exempt by state law or if applicable to the area to which the insecticide is applied. Do not use in areas where there is no protection for sensitive crops or plants. Do not use in areas where there is no protection for sensitive crops or plants. Do not use in areas where there is no protection for sensitive crops or plants. Do not use in areas where there is no protection for sensitive crops or plants.

Information about the manufacturer

STORAGE AND DISPOSAL
CONDITIONS: Leernes palmer de water, consermons aplicando el holl nie, use the application method as shown on the label. Do not use near water bodies, fish ponds or streams. Do not use in the presence of sensitive crops or plants. Do not use on or near crops or plants that are not listed on the label.

STORAGE: Leernes palmer de water, consermons aplicando el holl nie, use the application method as shown on the label. Do not use near water bodies, fish ponds or streams. Do not use in the presence of sensitive crops or plants. Do not use on or near crops or plants that are not listed on the label.

CONTAINER DISPOSAL: Leernes palmer de water, consermons aplicando el holl nie, use the application method as shown on the label. Do not use near water bodies, fish ponds or streams. Do not use in the presence of sensitive crops or plants. Do not use on or near crops or plants that are not listed on the label.

NOTE TO PHYSICIAN Leernes palmer de water, consermons aplicando el holl nie, use the application method as shown on the label. Do not use near water bodies, fish ponds or streams. Do not use in the presence of sensitive crops or plants. Do not use on or near crops or plants that are not listed on the label.

VIP Chemical Company
1557 South VIP Drive
Ft. Lauderdale, FL 33319

EPA Registration No 33162-95
EPA Fungicide No. 1678-C04

PPE for early-entry workers

CROP: Not a spray or in or near common plants. Avoid inhaling or ingesting. Use appropriate personal protective equipment. Avoid inhaling or ingesting. Use appropriate personal protective equipment. Avoid inhaling or ingesting. Use appropriate personal protective equipment.
Suggested Review and Discussion

1. What information is printed below the brand name of the pesticide?

2. What do the signal words, Caution, Warning, and Danger mean? What does the skull and crossbones symbol mean?

3. What kind of information can you find in the Statement of Practical Treatment?

4. What can you find in the Precautionary Statements section?

5. What kind of information is in the Note to Physician?

6. What is in the Environmental Hazards section?

7. What can you find in the Directions for Use section?

8. What is in the Agricultural Use Requirements section?

9. Give an example of a reentry restriction.
UNIT 8 TRANSPORTING PESTICIDES

Objectives

After this section, you should be able to state the safety rules to observe when transporting pesticides in a car or truck.

Opening Questions

Do you ever transport pesticides? How? How often?

♦ Do not allow people, pets, or livestock to ride in the same compartment with the pesticides. Don’t put food, feed, or clothes near the pesticides.

♦ Tie the pesticide containers down or secure them in other ways to make sure that they do not fall over or roll around.

If you move pesticides from place to place in a car or truck—

♦ Before you leave, ask your employer what to do if you have a spill. Carry spill cleanup materials with you (See Unit 11 Cleaning Up Pesticide Spills).

♦ Make sure the pesticides are in the back of the truck or in the trunk of the car—not inside with you.

Suggested Review and Discussion

1. What are important safety rules to remember when you carry pesticides in a car or truck?
2. Why should the storage area be locked?

You need to observe:

Pesticides: your workplace. Do you ever work at your workplace? Where are the storage areas at your workplace? Do you ever work at your workplace? Where are the storage areas at your workplace?

Suggested Review and Discussion:

When no one is working there, cannot get into the storage area since that people and animals look the storage area to make

Pesticide Spills:

Cleaning Up:

Clean up spills and leaks right away (see Unit 12 - Cleaning Up)

Problem:

If you see a spill, tell your boss right away. If you see a spill, tell your boss right away. If you see a spill, tell your boss right away. If you see a spill, tell your boss right away.

Check all containers for leaks, and spills. Until the spills are dry, they cannot be over closed tightly and are stored.

Make sure the containers are

Pesticides or Pesticide containers:

If you work in a storage area for

Objectives:

UNIT 9 STORING PESTICIDES
UNIT 10 MIXING AND LOADING PESTICIDES

Objectives

After this section, you should be able to--

- Say why it is especially important to observe safety rules when mixing and loading pesticides.

- State the key safety practices that relate to using PPE, opening containers, pouring pesticides, mixing pesticides, and protecting water resources.

Opening Questions

How often do you mix pesticides or load pesticides into application equipment? Why is this job dangerous?

You may sometimes have to mix and load pesticides—a job that requires special care. Because pesticides that have not yet been mixed are often in a concentrated (stronger) form, they can be especially dangerous to you.

When mixing and loading, follow the label directions and these safety practices:

- Give yourself extra protection. Wear chemical-resistant gloves and an apron over your other PPE. You probably need to wear protective eyewear, too. The pesticide label will often require extra PPE to be worn during mixing/loading operations.

- Read the label directions to find out how much pesticide you need, and then measure it carefully.
Using too much or too little can cause problems for the applicator, the use site, and the environment.

Use the label information to determine how much pesticide you will be using, and (3) the type of pest you want to control.

Put the pesticide container on a flat surface and open it carefully. If you rip the container, the dust can fly out and get on your skin and into your eyes, mouth, and lungs— and the pesticide will not pour out as evenly. Label the knife or scissors with soap and hot water before using them again.

Pour carefully to avoid splashes.

Never mix, load, or clean equipment near ponds, streams, wells, or ditches because rinse water containing pesticide could overflow and run off into these water sources.

Do NOT leave the mix or spray tank unattended while filling.
Suggested Review and Discussion

1. Why is it especially important to observe safety rules when mixing and loading pesticides?

2. What are the safe procedures to follow when opening pesticide containers?

3. What can you do to avoid splashes when pouring?

4. What kinds of PPE should you wear when mixing and loading pesticides?

5. Why do you need to follow the label directions when measuring?

6. Why is it important to keep the hose above the level of the liquid in the tank?

7. Why should you avoid mixing, loading, or cleaning equipment near ponds, streams, wells, or ditches?
UNIT II APPLYING PESTICIDES

Objectives
After this section, you should be able to:

1. Describe at least five safe practices to follow before applying pesticides.
2. Name at least five safe practices to follow while applying pesticides.
3. Explain what to do after applying pesticides.

Opening Questions
Do you apply pesticides as a regular part of your job? How do you usually prepare for the task? What equipment do you usually use?

Your job may require you to apply pesticides. Be sure to protect yourself, others, and the environment. Make sure you follow the application instructions on the pesticide label.

Before you start, put on all the PPE you need. Wear at least the PPE listed on the pesticide label. Then carefully check out the application equipment. Make sure there are no leaks. If you need to fix the equipment, turn it off first to keep you from getting on you. Remember to keep your PPE on while you are fixing the equipment.

Never apply pesticides so they can get on people—either directly or through drift. When you are ready to start, check the area for no people, pets, or livestock. Check for children's toys or other personal items where you plan to spray. If present, either you or the customer should clear them from the area before you begin your application.
The pesticide label will list the sites to which the pesticide can be applied. A site can be a particular crop, animal, type of building, turf, landscape area, or location in a building. It is illegal to apply a pesticide to a site not listed on the label.

If you will be applying pesticides outdoors, check the weather conditions before you start. Don’t apply pesticides when there is a wind blowing that could carry the pesticide out of the treated area. Even a light wind can blow pesticides away from the area where you want to apply them. Don’t apply pesticides when rain is expected if the pesticide is one that could be washed off the treated surface.

Look to see if there are ponds, streams, or wells in or near the area to be treated. Take the time and care to keep pesticides out of surface water supplies. Never apply a pesticide so that it can drift or run into water supplies.

Check the Environmental Hazard Statement on the pesticide label. Take special care to avoid harming wildlife that may be in or near the area you plan to treat.

Stay alert while you are applying the pesticide. Look at the area you have just treated to be sure you are applying the pesticide evenly and the coverage looks right.

Watch for clogged nozzles or hoppers. Do not use your mouth to blow out the nozzle. If you need to clean a nozzle, use a nonmetal nozzle-cleaning tool. Sharp metal can ruin the nozzle.

When you finish the application, put your equipment away. Don’t leave it in the treated area, and don’t let it sit for a long time with pesticides on or in it. Your employer should tell you how to clean it. Follow his or her instructions and remember to keep your PPE on until the application equipment has been put away.
Rinse water, from cleaning equipment, should not be dumped on the ground or down a drain. Collect the rinse water and use it to make your next tankful of spray mixture. Or, spray the rinse water out on a labeled site.

**Suggested Review and Discussion**

1. What are safe practices to follow before applying pesticides to any area?
2. While applying pesticides, what should you be careful about?
3. After applying pesticides, what should you do?
UNIT 12 CLEANING UP PESTICIDE SPILLS

Objectives

After this section, you should be able to--

♦ List the basic safety principles to follow if a pesticide spill occurs.

♦ Name the three "Cs" of spill management and explain the actions to take under each category.

Opening Questions

Have you ever had to clean up a spill? What kind was it? What did you do?

Pesticide spills can occur during any pesticide handling task. Here are steps you should take if a spill occurs:

♦ Think first of protecting yourself, other people nearby, and the surrounding area--especially water sources.

♦ Never try to clean up a spill unless you have the right PPE and cleanup materials.

♦ If you don’t know what to do, call for help and wait until it arrives.

♦ If it is a big spill, send someone for help if you can. Don’t leave if no one else is there--someone must be there to warn others of the danger.

♦ If it is a big spill, your employer must be contacted as soon as possible so the proper actions can be taken and the proper authorities can be notified.
If the pesticide or absorbent material is likely to blow around, moisten it very slightly with water or cover it with a tarp.

Sweep the spill and cleanup materials into plastic containers or special drums. Then ask your employer what to do with the waste.

Control the spill—make sure that the spill is stopped:
- Shut off the mixing or application equipment if it is leaking.
- Turn the container upright if it has fallen.
- If the container is broken or leaking, put it inside another container.

Practice the three C’s of spill management:
- Contain the spill—stop the spill from spreading.
- Use a mound of dirt or other material to make a dike around the edge of the spill.
- Rope off the area so that other people cannot walk through it.

Clean up the spill:
- Do not use water. It will spread the spill and make it worse.
- Soak up liquid spills with special absorbent materials; sawdust, clay, cat litter, or other absorbent materials.

Suggested Review and Discussion

1. What are the basic safety principles to follow when dealing with a pesticide spill?
2. What are the three Cs of spill management?
3. Name three actions to take to control a spill.
4. How can you stop a spill from spreading?

5. How should you clean up a spill?

6. What should you do if the spilled pesticide or the cleanup material is likely to blow around?

7. What should you do with the spilled pesticides and contaminated cleanup materials?
UNIT 13 CLEANING PESTICIDE CONTAINERS

Objectives

- After this section, you should be able to:
  - Describe the steps involved in rinsing containers.
  - Explain what to do with containers that cannot be rinsed.
  - State three don'ts for handling empty pesticide containers.

Opening Questions

- Are you responsible for cleaning containers? What do you do with the cleaned empty containers?

- Your employer will tell you what to do with empty pesticide containers. Many containers should be triple rinsed immediately after you empty them. Follow these steps:
  - Pour the rinse water from the container into the mixing tank.
  - Repeat the rinsing at least two more times. Instead of triple rinsing, you can pressure rinse pesticide containers by using a pressure-rinse nozzle. Follow these steps:
  - Insert the nozzle into the side of the container.
  - Turning the nozzle in all directions, rinse the inside of the container for at least half a minute.
  - Drain the container as well as you can into the mix tank.

First, fill the empty container with clean water until it is 1/4 full.

Put any cap on, or tightly close the opening. Carefully shake or roll the container so that the water rinses the inside completely.

Pour the rinse water from the container into the mixing tank.
Bags and other nonrinsable containers should be shaken or tapped to remove as much of the pesticide product as you can.

Empty containers should be locked away until they can be disposed of properly. Even well-rinsed containers may still contain small amounts of pesticides. Don’t use them for any other purpose, and do not take them home under any circumstances. Never leave empty containers lying around the work site or anywhere else. Some pesticide containers can be returned to the dealer, but they must be properly cleaned first.

**Suggested Review and Discussion**

1. How many times should you rinse empty containers?

2. What are the steps for washing empty containers?

3. What should you do if a container cannot be rinsed?

4. What should you do with empty containers?

5. Name three things not to do with empty containers?

6. If in doubt about what to do with containers, what should you do?
Containers cannot be disposed of by open burning. Containers should be disposed of properly, if pesticidal containers have been used.

Pesticide containers may be sent to a sanitary landfill, they may be sent to a sanitary landfill after being rinsed or cleaned.

Do your employer's check requirements vary from state to state?

Pesticide disposal, disposal regulations for disposal of pesticides and directions for disposal of pesticides and directions for disposal of pesticides are general requirements where a label has been shipped.

Although the label has been shipped, pesticides that will be needed, your employer should avoid buying more, according to label directions. Your employer should use the pesticide is used up, the best way to dispose of disposed of properly.

Locked storage area until they can be longer used. Store them carefully in a locked area. Store pesticides that you can no longer use. Store them carefully in a locked area. Store pesticides that you can no longer use. Store them carefully in a locked area.

Occasionally, you may have a problem with pests or disease, but do not throw away pesticides. Dispose of the pesticide in accordance with local regulations.

How can you find out about disposal regulations for disposal of pesticides?

Do you know your state's regulations for disposal of pesticides?

Opening Questions

Information about disposal.

State who to contact for more information about disposal.

Explain where to look first for anyone who has been exposed to pesticides.

After this section, you should be able to:

Objectives
Leftover pesticides and improperly cleaned containers cannot be sent to sanitary landfills.

Disposal programs for containers and/or pesticides are occasionally offered by the Ohio Department of Agriculture, local municipalities, or business groups. Help your employer take advantage of these opportunities.

Suggested Review and Discussion

1. Where can you look for directions about what to do with leftover pesticides?

2. Who should know about state requirements for disposal?

3. Is it safe to store leftover pesticides before getting rid of them?
UNIT 15 CLEANING UP

Objectives

After this section, you should be able to:
- Describe safe practices to follow when removing PPE.
- Tell what to do with PPE after taking it off.
- Explain how to clean PPE if your boss asks you to do it.
- List the types of equipment that cannot be cleaned.
- Describe what to do for personal cleanliness whenever you finish a pesticide handling job and at the end of the workday.
- Give directions for washing protective clothing and PPE in a washing machine.
- Do you usually keep your gloves on or take them off when you remove your PPE?
- Does your boss ever ask you to clean PPE?

When you finish any pesticide handling job, take off your PPE. That way, you and others won't risk contacting any pesticides that may be on the PPE. When taking off PPE, be careful not to get pesticides on your skin or inner clothing. Here are some safe practices for removing PPE:

- Wash the outside of your gloves while you are still wearing them.
- If possible, keep your gloves on while taking off other PPE.
- Peel down your coverall and take off other PPE if you've already removed your gloves, touch the outsides of the PPE as little as possible.
Wash your hands. Wash your face and any other exposed skin, too. Use lots of soap and water.

Put all your used PPE in a place by itself until it can be cleaned or disposed of. You should not wear home or take home PPE that has not been cleaned.

If your employer asks you to clean PPE at work, be sure you know how to do it safely. Wear gloves. Hand wash the inside and outside of PPE like gloves, boots, and respirator facepieces.

Use mild soap or mild detergent and very warm water to wash most PPE. For coveralls and other machine washable items, follow the washing procedure on the next page.

Some types of equipment cannot be cleaned—they should be thrown away when they can no longer protect you. These include respirator filters, cartridges, and canisters and some kinds of disposable coveralls, gloves, shoe coverings and aprons. Your employer should tell you when to throw them out. Throw away coveralls or other work clothes that are soaked with pesticides because, in this case, even thorough washing will not remove all the pesticide.

At the end of the day, take off your work clothes, shower, and put on clean clothes. Put your used work clothes into a container until they can be washed. Don't ride home with pesticides on your clothes -- you will contaminate your vehicle.
If possible, hang your work clothes outside on a clothesline to dry (for 24 hours). Try not to use a clothes dryer because pesticide residues may contaminate the clothes dryer over a period of time. If you must use a clothes dryer, use the hottest setting possible to help break down pesticide residues.

Before doing family laundry, it is a good idea to clean the machine by running the washer through at least one more complete cycle without clothing but with detergent and hot water.

Don't let other people touch any of your work clothes that may have pesticides on them. Even when you wear a coverall over regular work clothes, the work clothes can pick up small amounts of pesticides. The pesticides can rub onto anyone who touches the clothes. At home, be sure to keep your contaminated work clothes out of reach of children and pets.

Washing procedure for work clothes:

- Always keep your work clothes separate from your family's clothes. Wash work clothes in a separate load in the washer.
- Wash only a few items at a time to allow plenty of agitation and water for dilution. Use the highest water-level setting.
- Use a heavy-duty detergent and hot water for the wash cycle.
- Rinse your work clothes twice in warm water. Using two rinse cycles helps remove even more pesticide residue.
- Use two complete machine cycles to wash items that are moderately to heavily contaminated.
Suggested Review and Discussion

1. What is the first thing to do after you finish working with pesticides? Why is this so important?

2. What are safe practices to follow when taking off your PPE?

3. Which parts of your body should you wash immediately after peeling off PPE?

4. What is a safe way to wash PPE by hand?

5. Which PPE should be thrown away after use?

6. At the end of the workday, what should you do to ensure that you have no pesticides anywhere on you?

7. How can you protect your family from pesticide contamination?

8. What is the procedure for machine washing work clothes or coveralls that have been exposed to pesticides?

9. What is the recommended way of drying work clothes that have been exposed to pesticides?

10. How should you clean your washing machine after doing your work clothes and before doing family laundry?
Objective:

- Explain ODA's off-site pesticide movement regulations.
- Record keeping requirements.
- List the pesticide application penalties for failing to do so.
- Pesticides and list the types of restricted use and General Use pesticides.
- Explain the difference between restricted use and General Use pesticide labels and enforcement of law.
- Explain why pesticide labels are enforceable as law.
- Tell who registries pesticides.
- Give the names of the federal and state pesticide agencies that regulate the use of pesticides.
- Tell what federal and state able to-

After this section, you should be able to-

Objectives:

- Open Questions
  - Training requirements
    - Supervision and record keeping.
    - Explain ODA’s direct equipment.
    - Safe use of application.
    - Explain ODA’s requirements for applications.
    - Any due to pesticide illness or property damage that
      - Describe the obligation to report

Unit 16 Laws and Regulations
In Ohio, the use of pesticides is regulated by the USEPA and the Ohio Department of Agriculture. ODA actually enforces the federal pesticide law for USEPA in Ohio. This law is called the Federal Insecticide Fungicide and Rodenticide Act (FIFRA). In addition, ODA also enforces the Ohio Pesticide Law. Both laws also contain a set of regulations which further define requirements to be met by pesticide users.

That is, if the pesticide product is used according to the label directions, then no unreasonable harm should be caused to people or the environment. It is a legal requirement that pesticide products be used according to the label directions. THE LABEL IS THE LAW.

USEPA classifies products as either Restricted Use or General Use. A Restricted Use product is more likely to cause harm to people or the environment unless it is applied by a certified applicator or someone under the direct supervision of a certified applicator. FIFRA requires a certified applicator to be involved in the application of a Restricted Use product. A Restricted Use pesticide product cannot be sold to or bought by a non-certified person.

One of FIFRA’s most important features is that it sets the requirements under which pesticides can be registered. All pesticides must be registered with USEPA. In addition, any company that wants to register a pesticide must also provide label directions for safe use of the product.
Environmental Protection Agency
United States
EPA

For civil or criminal penalties, trained servicers may be accountable under label directions or the directions of the chemical manufacturer. If an illegal application of pesticides is performed, the person responsible can be held accountable for civil or criminal penalties.

In addition, the EPA can levy civil fines against illegal pesticide handlers. A person could be charged with a first or second degree misdemeanor, or a criminal offense. A person could be charged with a first degree felony. A fine up to several hundred dollars. If the fined servicer is a public agency, the fine up to several hundred dollars. If the fined servicer is a public agency, the fine up to several hundred dollars.

Know the Law
General use pesticides, although not certified, a trained supervisor of a certified applicator, applied by a certified applicator or a public agency, must be supervised for correct application. All pesticides (RUPs), can still cause substantial damage to people or the environment. If applied on hand, not as dangerous as restricted use pesticides.
<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Name and address of responsible certified applicator and any other persons applying pesticides at the application site.</td>
</tr>
<tr>
<td>2.</td>
<td>Date of application and reentry date when applicable.</td>
</tr>
<tr>
<td>3.</td>
<td>Type of pesticide to be treated.</td>
</tr>
<tr>
<td>4.</td>
<td>Name and address of person contracting for service.</td>
</tr>
<tr>
<td>5.</td>
<td>Principal pests to be controlled.</td>
</tr>
</tbody>
</table>

The following are the items required for a pesticide application record:

- The trained serviceman is responsible for recording the information as soon as possible after each application. In addition, it is a serious violation if the records are false or fraudulent.

One of the most common violations is the failure to maintain proper pesticide application records. The recordkeeping requirement is spelled out in the state law and regulations. The certified applicator is responsible for maintaining the records, but the job is impossible unless the trained serviceman records the information.

Location or field identification number of treatment area. EPA registration number of pesticides used.

Trade name (brand name) and concentration of pesticide product used.

Total amount of each pesticide applied.

Starting and stopping times of pesticide application.

Wind direction, velocity, air temperature, and other applicable weather conditions.

Crop rotation restrictions.

Structural pest control operators may delete items 4, 6, 13 & 14.

Trained servicemen might be responsible for recording only selected items of the records depending on the type of application and the office practices of the business or agency.

Acreage or number of plants to be treated.
Off-site Movement

Another common violation, especially for outdoor applications, involves the off-site movement of pesticides. This movement could be due to:

- drift - pesticide moved by wind during application
- volatility - after application, pesticide changes to gaseous state and then moved by wind
- runoff - rainfall moves pesticide off surface after application

By taking the proper precautions, all of the above can usually be avoided.

The Ohio Pesticide Law contains two regulations which address off-site movement of pesticides:

Regulation 901:5-11-02

General Safety Provisions

(F) No person shall apply a pesticide to an area or a crop in such a manner or at such a time that he will contaminate adjacent crops, pasture land, other area, or water.

(G) No person shall apply a pesticide at such time or under such conditions that the wind velocity will cause the pesticide to drift and cause damage.
Pesticide applications can cause problems. These are sometimes due to illegal or faulty applications. But sometimes problems occur even after all reasonable precautions have been taken and a completely legal application has been made. The following are some common problems that occur due to pesticide applications:

- A pet becomes ill and is taken to a veterinarian.
- The neighbor's garden is damaged by pesticide drift.
- A customer claims that the pesticide smell is making her sick.
- The horse pasture next door is contaminated and cannot be used for grazing.
- A person has an asthma attack due to the pesticide and goes to the hospital.
- Pesticide runs off the site of application into a pond and kills fish.
- Children break out in a rash the day after your application and are taken to a doctor.

It is the certified applicator's job to respond to the complaints. However, the trained serviceman must tell the certified applicator when made aware of these kinds of situations.

In addition, the certified applicator must inform the Ohio Department of Agriculture when certain types of problems occur. The Ohio Pesticide Law contains two regulations concerning problem reporting--

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**Regulation 901:5-11-02**

**General Safety Provisions**

(E) A custom applicator, limited commercial applicator, or public operator shall report to the Director of Agriculture:

1. By telephone, within 48 hours of his knowledge of any human illness requiring medical attention, resulting from or allegedly resulting from a pesticide used by him followed by a written report within seven (7) days.

2. By written report within ten (10) days of his knowledge of any property damage, in excess of two hundred fifty dollars ($250.00) allegedly resulting from his operation.
Regulation 901:5-11-02
General Safety Provisions

(C) No person shall operate equipment for the application of pesticides, including such auxiliary equipment as hoses and metering devices, in such condition or in such manner as to create a hazard from leaking, spillage, dripping, backflow, vapors or drift and thereby create a hazard to the public health and safety of the public or to animals or wildlife.

Pesticide problems happen sometimes because the equipment is improperly maintained or operated. Sometimes, the trained serviceman is the only person who uses a certain piece of equipment and therefore, knows the condition of the equipment better than any other person there.

It is the responsibility of the trained serviceman, as well as the certified applicator, to recognize problems with the pesticide handling equipment that might lead to an unsafe application. Further, while out on the job, it is the trained serviceman's responsibility to use the equipment in the proper manner.

The Ohio Pesticide Law contains the following regulation pertaining to the safe use of equipment:

No person shall operate equipment for the application of pesticides, including such auxiliary equipment as hoses and metering devices, in such condition or in such manner as to create a hazard from leaking, spillage, dripping, backflow, vapors or drift and thereby create a hazard to the public health and safety of the public or to animals or wildlife.

58