# Agrochemicals and Security

## A Training Module for the Safe and Secure Storage of Pesticides and Fertilizers




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Florida Cooperative Extension Service, 2005

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The Agrochemical and Security Series is available for download from the Florida Cooperative Extension's Disaster Handbook Web site <http://disaster.ifas.ufl.edu>. The series comprises six units:

- Why It Matters (An introduction to agrochemical security)
- Chemical Safety
- Homeland Security and Fertilizers
- Homeland Security and Pesticides
- Security and Anhydrous Ammonia
- Developing a Hazard Mitigation Plan

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## About Florida AgSafe

Florida AgSafe is a program of the Florida Cooperative Extension Service that provides information and educational materials for agricultural safety and for disaster preparedness and recovery. Materials produced by Florida AgSafe are available on the Web at <www.flagsafe.ufl.edu> and at the Florida Cooperative Extension publication Web site <edis.ifas.ufl.edu>.

### Our Goals

- To inform people about ways to be safe and secure, and thereby reduce the number of deaths, injuries and occupational diseases, particularly for agricultural workers and their families.
- To build a safety infrastructure for Florida through five activities: training of workers, training of students, publications, networks, and linkages.
- To encourage adoption of safe practices among employees and clientele. Every employee or client should be exposed to a safety tip or safety practice on a regular basis.
- To prepare the people of Florida to face disaster of any kind, to mitigate losses, both in life and property, and to promote rapid and effective recovery.

# Preface

For many years, producers have been aware of the health hazards of pesticides. These materials are carefully regulated, and the safety requirements for every pesticide product are spelled out in detail. Most fertilizers have been in an opposite category, considered useful, safe and inert. However, in recent years, agricultural chemicals — specifically, fertilizers — have been used in some of the most damaging terrorist attacks around the world.

These attacks have given the general public, agricultural producers and governmental authorities a new point of view. It is important for all to realize that, in the wrong hands, agricultural chemicals, including fertilizers and pesticides, could be used to do great damage.

This module provides several units which address different aspects of this problem. There are six units in this training module (with the page numbers where they can be found in this manual):



Units can be used separately or in combinations depending on audience needs. Each unit consists of:

- A narrative which gives background material;
- A PowerPoint presentation which parallels the narrative;
- Pre- and post-tests, and an evaluation; and
- Table-top exercises (selected units).

The module is structured to give the presenter plenty of flexibility. Use all six units with table-top exercises to create a day-long workshop on agricultural security, or show only one PowerPoint presentation with a question and answer period for a 20- to 30-minute training session. Reduced images of all PowerPoint slides are included with each unit and can be copied to create a participant workbook.

# How to Use Pre- and Post-Tests

The idea of a "pre-post" test is that participants take the same brief quiz before and after the presentation. This gives the presenter and the participants an objective view of how much participants learned and how effective different points in the presentation were. A pre-post test takes just a few minutes before and after the presentation, but it can be a valuable tool for evaluating the presentation and reporting its impact on participants.

# Unit 4:Homeland Security and Pesticides

**Subject**

Pesticides have played a major role in the agricultural revolution allowing much greater yields and permitting cultivation of crops in new regions. Nevertheless, pesticides are powerful and potentially dnagerous chemicals which could be misused to destroy crops, animals or humans.

**Goal**

Make participants aware of the potential misuses of pesticides and explain security and awareness measures that can prevent pesticides from falling into the wrong hands.

**Objectives**

As a result of this session, participants will:

- Be aware that pesticides can be used to intentionally harm humans, animals and crops.
- Understand behaviors that may indicate suspicious activity.
- Understand that specific security measures can prevent unlawful access to pesticides.

**Session Outline**

Part 1: Welcome and Introduction
Part 2: Unit Learning Objectives
Part 3: Pre-Test
Part 4: Module Introduction
Part 5: Learning Sections

- Section 1: The Connection between Pesticides and Homeland Security
- Section 2: What is a pesticide?
- Section 3: Working with Pesticides: MSDS and Right-to-Know
- Section 4: Pesticide Hazards
- Section 5: Use and Misuse of Pesticides
- Section 6: Improving Security
- Section 7: Identifying Suspicious Behavior
- Section 8: Who should you contact if you suspect theft?
- Section 9: Summary

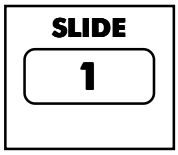
Part 6: Questions and Discussion
Part 7: Post-Test
Part 8: Table-top Exercise and Handout “Recognizing Suspicious Behavior”
Part 9: Session Evaluation
Part 10: Adjourn

**Learning Environment and Aids**

To conduct this training, you will need:

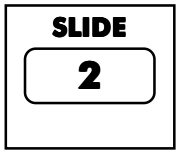
1. "Homeland Security and Pesticides" PowerPoint presentation, and a means to show it. (Download from the UF/IFAS DIsaster Handbook Web site: <http://disaster.ifas.ufl.edu>.)
2. Note paper or PowerPoint slide pages to serve as participant workbooks
3. If desired, sufficient copies of the Pre- and Post Test for all participants to take the test both before and after the session
4. Unit 4 evaluation forms.

## Part 1 — Welcome and Introduction




Take a moment at the beginning of the lesson to welcome the participants to the session. Introduce yourself as the presenter, and remind participants of the title and subject (above) of the session.

## Part 2 — Unit Learning Objectives




Briefly introduce the audience to the learning objectives for this unit:

- Be aware that pesticides can be used to intentionally harm humans, animals and crops.
- Understand behaviors that may indicate suspicious activity.
- Understand that specific security measures can prevent unlawful access to pesticides.

## Part 3 — Pre-Test

If you choose to administer pre- and post-tests, do so now before you do anything else. Explain to the participants that everyone will take a short quiz before the session just to give themselves a clearer idea of what they already know about the subject and some things they will learn during the session. Tell them that they will take the same test at the end of the session and this will help the presenter by giving an idea of the effectiveness of the session.

The pre- and post-tests should take only a few minutes each.

# Part 4 — Module Introduction

If participants have not covered the Module Introduction in a previous session, present that material now as a general introduction to the importance of agricultural security.

# Part 5 — Learning Sections

## Section 1: The Connection between Pesticides and Homeland Security

**SLIDE 3**

Because of their ability to affect human and animal health, pesticides have been closely regulated for many years, beginning in the 1960s. However, new concerns were raised about pesticides and crop dusters after the terrorist attacks of September 11, 2001.

During the investigation into the 9/11 attacks, it was learned that the terrorists had looked into a variety of attacks supported by different kinds of equipment. Among these were attacks which could be accomplished using crop dusters and light aircraft, possibly to spray either poisons or disease agents on large gatherings of people, such as the crowds that would be found at a popular attraction like Disneyworld in central Florida, or to poison water supplies. To this end, at least one 9/11 terrorist sought training in the operation of crop dusters in Southwest Florida.

To date, the use of pesticides as weapons has been quite rare, in spite of the fact that some pesticides are closely related to well-known chemical warfare agents. Pesticides have been used by terrorists in Israel/Palestine. Authorities believe that the chemicals have been included in bombs with the idea that the bomb's deadliness will be increased. However, a bomb is a very ineffective dispersal tool for chemicals like pesticides, and the blast itself can cause significant degradation to the chemicals.

**SLIDE 4**

In this unit, we will look at pesticides — what they are, what they are made of and why a terrorist might be interested in them. What a terrorist might do with a pesticide is clearly an intentional misuse. We will examine both intentional and unintentional misuse because there are many areas of overlap. Then we will look at security and response. There is another unit in this module on hazardous material that goes into greater detail about the issues of readiness and response in the event of an unintentional release of pesticides.

## Section 2: What is a pesticide?

SLIDE 5

Many people use the term pesticide as a synonym for "insecticide," however, herbicides, fungicides, rodenticides and any other substance used to control a pest is a pesticide. All pesticides are poisons, that is, they are designed to be and applied in quantities necessary to cause death to a specific organism or class of organisms. Generally, pesticides are either natural or synthetic chemicals that interfere in some way with the life processes of the pest.

Poisons derived from plants have been used as pesticides for centuries, documented as far back as ancient Egypt. The ancient Greeks used fumes of burning sulfur to drive pests from their homes, and nearly a thousand years ago, we find the first use of arsenic as a pesticide. Over the years, additional botanicals and inorganics were added to the list.

The modern era in pesticides began in the nineteenth century with the development of organic chemistry and the ability to produce synthetic chemicals, which led to the creation of many forms of plastics, medicines, and dyes. The use of chemical warfare in World War I stimulated many countries to search for deadly compounds. DDT had been discovered in 1889, but it was not used as an insecticide until 1939. It was the first of the organochlorines, a family of chemicals that would include lindane (1943) and chlordane (1945). At around the same time, development of two other important categories of pesticides began: the organophosphates, which include parathion (1940) and malathion (1950); and the synthetic pyrethrins, including permethrin, cypermethrin, and deltamethrin.

Since the 1950s, many new pesticides have been introduced. There have also been many bans placed on pesticides as the long-term effects of these chemicals became apparent. Pesticides remain an important — even critical — tool for agricultural producers. Research has focused on pesticides that require lower application amounts or are less persistent. There is also much work being done on biological controls as alternatives to pesticides and on genetic modifications of crop plants so that they can protect themselves against pests.

## Section 3: Working with Pesticides: MSDS and Right-to-Know

The Occupational Safety and Health Administration (OSHA) has created guidelines under which workers have a right to know what chemicals they

SLIDE 6

might be exposed to in their work environment and what the dangers and appropriate precautions are for working with those materials. Many states have adopted these guidelines in the form of "Right-to-Know" laws. Under these laws, both employers and employees have obligations. Employers are required to inform employees (or make information available) about any chemicals they work with. Employees are required to follow established procedures when handling dangerous chemicals.

Which chemicals are covered by right-to-know laws? The Federal Register contains a long list of chemicals which are covered by this law. Individual states also have right-to-know laws and lists of hazardous chemicals. For these chemicals, employers must maintain records, including information about their dangers and safety precautions.

SLIDE 7

When listed chemicals are purchased, manufacturers are required to supply information about the chemical, including its name, chemical properties, dangers, modes of injury, safety precautions, and medical response. The forms containing this information are called Material Safety Data Sheets (MSDS), and employers are required to have current MSDS on file for all listed chemicals in their facility. Many MSDS are available on the Internet.

SLIDE 8

Specifications for an MSDS can be found on the OSHA Web site at: <http://www.osha.gov/dsg/hazcom/msds-osha174/msdsform.html>. There are many sources of MSDS. Contact the chemical's manufacturer or distributor. You may also find the MSDS on the Internet. Use any search engine to locate sources of MSDS on the Internet. A particularly useful site is <http://www.msdssearch.com/>.

## Section 4: Pesticide Hazards

SLIDE 9

The challenge of pesticides is that because they can affect the target organisms, they can often also affect non-target organisms. For this reason, it is very important that pesticides be applied only when needed and only in the quantities necessary to do the job. Otherwise, there is a risk that excess pesticides will get into groundwater, the air or food crops and get a free ride on the natural water cycle (hydrological cycle). Once part of this cycle, pesticides can make their way throughout the environment and into the water supply and/or the food chain.

There is also the risk that comes from chronic exposure. Those most at risk for chronic exposure are workers who actually load and apply pesticides or who work with treated crops or environments.

Pesticides that are sprayed on crops, including insecticides, herbicides, and fungicides, can be carried by several mechanisms into every corner of the environment. Fortunately, like many substances, pesticides eventually break down in the environment, however, some pesticides break down very easily (low persistence) and others take years to break down (high persistence).

A famous case of high persistence is the pesticide DDT. This chemical was discovered in the nineteenth century, but it was first used as a pesticide by Dr. Paul Muller in 1939. Use of DDT spread quickly, mainly because of its effectiveness against mosquitoes and therefore malaria. Millions of people die of malaria every year in the tropical regions of the world. DDT was so effective that Muller was awarded the Nobel Prize for Medicine in 1948.

Many Americans have childhood memories of trucks moving slowly through their neighborhoods spraying DDT for mosquito control. Nevertheless, in the early 1960s, researchers began to develop information about the persistence of DDT in the environment and its appearance in animal populations. The researchers especially noticed how DDT became more concentrated as it moved up the food chain from one prey animal to its predator, to its predator, and so on. The American bald eagle became part of the discussion because the fragility of its eggs and therefore its declining numbers were traced to DDT.

Pesticides are able to kill their target organisms by interfering with a specific bodily function. These chemicals can also interfere with the bodily functions of humans and animals, and therefore, when people or animals are exposed to pesticides, they can be injured. As with any poison, this effect is usually dose-related — that is, a bigger dose will have a bigger effect, or a particular dose will have a greater effect on a smaller individual than on a larger one.

It is important to know what you are working with because of the many health effects of pesticides. Workers and others exposed to pesticides can take them in through breathing them in (inhalation), through food and water (ingestion), or through the skin (absorption). It is easy to see the effects of pesticides when someone gets a large dose and immediately gets sick. This is called acute exposure. It can be more difficult to detect the long-term effects that result from exposure to small amounts of pesticides every day. This is called chronic exposure. Work procedures and personal protective equipment should both be designed (and used!) to protect against both kinds of exposure. Consistency in using correct procedures and protective equipment is very important.

## Section 5: Use and Misuse of Pesticides

SLIDE 10

It's easy to see why using pesticides properly is so important. We can divide misuse of pesticides into three types:

- Unintentional misuse
- Unintentional release
- Intentional misuse

For each of these types of misuse there is a means of prevention. There are also appropriate preparedness plans, so that if any of these incidents occur, you will be ready to respond promptly to minimize the damage.

SLIDE 11

**A. Unintentional Misuse –** Because of the dangers that pesticides pose to those who handle them, the sale, distribution and use of pesticides are governed by regulations. Many pesticides may only be purchased from a licensed seller by a licensed user, and then may only be applied by certified personnel. Nevertheless, correct use of pesticides depends on human decisions, and misapplication does occur.

Prevention – The key to preventing unintentional misuse is effective training, certification, and supervision. Sprayers and other machinery that are used to apply pesticides should be in good working order and correctly calibrated.

Response – Once unintentional misuse is detected, a producer will have to decide on the correct response. Response to unintentional misuse may include reassigning or retraining workers or supervisory staff.

Reporting – Authorities should be notified if the misuse has been on such a scale that it causes problems to adjoining operations, worker health, the environment, or the food product itself.

SLIDE 12

**B. Unintentional Release –** When pesticides are spilled or released unintentionally, a special, immediate response is called for.

Prevention – As with unintentional misuse, effective training and supervision are important in preventing unintentional misuse. It is especially important that workers be trained in correct procedures for storage, labeling, transferring and dispensing pesticides.

Response – Your storage facility should have a spill kit nearby. The kit should include absorbent materials for liquid spills, hydrated lime for neutralizing

certain spills (organophosphates and carbamates only), a shovel and broom, and heavy-duty plastic bags and waste cans for disposal. Contact authorities in order to dispose of all clean-up materials and waste properly. Clean-up workers must wear appropriate protective equipment.

Reporting – If the scale of the spill exceeds your capacity to respond rapidly and effectively, contact your local fire department immediately so that a HAZMAT team can be sent to your location.

SLIDE 13

**C. Intentional Misuse –** Because pesticides are generally quite poisonous, they can be used potentially to injure or kill people, animals or crops. Pesticide researchers have produced pesticides that are more toxic so that smaller quantities can be used in the field. This makes pesticides more efficient but also more deadly.

Many pesticides are formulated for "mass delivery" in the form of sprays, and that is how one might imagine a terrorist using them. Nevertheless, it is not a trivial matter to acquire pesticides, load them into a crop duster and then spray them effectively. Each step in this process requires some expertise. In fact, though we think of chemical weapons as weapons of mass destruction, it is difficult to deliver these weapons effectively against human populations. Effective or not, misusing chemicals in this way is certainly terrifying, and could possibly cause a great deal of illness.

A simpler scenario is the use of pesticides in acts of agroterrorism – to destroy food crops or animals – or in acts of poisoning. These acts are more likely to be motivated by personal revenge than political causes.

Prevention – Whatever a perpetrator may wish to use pesticides for, the key to preventing intentional misuse is a good security program as outlined in this unit.

Prevention, response and reporting are covered in the remaining sections of this unit.

## Section 6: Improving Security

SLIDE 14

[Note: This security section appears in the Fertilizers and Anhydrous Ammonia units, as well as this one. If more than one unit is being presented to the same audience on the same program, the presenter may wish to use the security section in only one unit.]

Now that you understand how pesticides can be misused, you can understand the need for an attitude of security in dealing with them. Virtually everyone who uses pesticides – especially bulk suppliers and bulk users – needs to increase security so that these materials do not fall into the wrong hands.

Good security begins with an effective security plan. A good security plan has several parts. The parts you use depend on the size and activities of your operation. An effective plan does not need to be complicated, but it should take into account each of the following areas.

- Storage
- Transportation
- Personnel
- Disposal
- Response

For each of these areas, we provide tips to improve security. Consider these tips. Decide which ones apply to your operation and make some notes about actions you can take.

Keep in mind that this is not a complete list of storage recommendations for pesticides, and it does not fully address safe storage of pesticides. Contact local authorities to be sure that your pesticide storage facility complies with all regulations and best practices.

### 6A. Security: Storage

**SLIDE 15**

Key question: How easy would it be for a pesticide to "disappear" from your facility? —

Suggested tips:

**SLIDE 16**

- Maintain inventories so that you always know the exact quantities of pesticides you have.
- Use logbooks to keep track of who removes pesticides from your facility.
- Store pesticides in a building which can be locked or in a fenced enclosure with a locked gate.
- If appropriate, provide a second security perimeter, such as a fence with a locked gate surrounding your storage facility.

SLIDE 17

- Perform a walk-through and walk-around daily to check for attempted entry, vandalism, and structural integrity.
- Provide good lighting on all sides of your storage facility.
- For some facilities, install security systems, such as alarms and camera systems, and make sure they are properly maintained.

### 6B. Security: Transportation

SLIDE 18

Is transportation the weak link in your security? — Once materials leave your facility, you may feel that your job is done, but it is important that pesticides you sell make it all the way to the intended end user. The following tips will help you in developing a simple, effective security approach to transporting pesticides.

Suggested tips:

SLIDE 19

- Create a paper-trail for any pesticides you ship.
- Ship pesticides in a locked vehicle.
- Go directly to the delivery point when possible, taking the best route available to avoid high population areas, tunnels and bridges.
- Exercise extreme caution if it becomes essential to stop. Avoid unguarded and unlighted areas where theft is a substantial risk and be on your way as soon as possible.
- Be alert to vehicles following your truck, strangers asking questions, or anyone snooping around your cargo.

SLIDE 20

- Do not pick up hitchhikers; do not talk about your cargo on CB radio; and do not discuss your cargo with those not involved.
- Always telephone your customer if you find you will be late for a delivery.
- Check your load at delivery to ensure no product is missing. Do not leave product at field site unless it is well attended or secured within buildings.
- Always obtain a signed delivery ticket.
- Carefully check background of all new drivers. Every driver should be properly licensed and trained in good practices for handling fertilizer and pesticide chemicals that may be hazardous in the hands of dangerous people.

SLIDE 21

### 6C. Security: Personnel

Do you know your employees? Do you know who has access?

Suggested tips:

SLIDE 22

- Develop effective hiring and labor relations policies.
- Consider background checks for current/new employees, particularly if the person handles hazardous materials.
- Consider fingerprinting and photographing employees who handle hazardous materials.
- Be aware of personal identity theft, such as stolen Social Security Numbers, references, etc.
- Request employees to watch for suspicious activities and ask persons they don't recognize to identify themselves and state their reasons for being on the premises.

SLIDE 23

- Adopt a company security whistleblower protection policy.
- Know who has keys and access to hazardous material storage areas.
- Retrieve keys and employment identification cards from an employee and change computer access passwords when their employment ends.
- Assess a worker's violence potential and take appropriate security precautions when terminating or disciplining an employee.

SLIDE 24

### 6D. Security: Disposal

Do you have a plan for safe and secure disposal?

Suggested tips:

SLIDE 25

- Maintain security over material which is being disposed of until it is claimed by appropriate authorities.
- Arrange for prompt and safe disposal of materials.

SLIDE 26

### 6E. Security: Response

Do you have a formal response plan? Do your employees know it?

Suggested tips:

SLIDE 27

- Develop an emergency plan for your facility. Train your workers in the plan and rehearse it with them.

- Post emergency response numbers, including fire, law enforcement, medical contacts, and poison control in several locations in your facility. Make all employees aware of these response numbers.
- Report to appropriate authorities any suspicious activities, vehicles, persons, threats to personnel or facilities, sabotage/vandalism to facilities or equipment, and thefts, inventory shortages, or missing products that could pose a risk to public health or safety.

## Section 7: Recognizing Suspicious Behavior

SLIDE 28

People who are buying chemicals for illegal purposes usually look just like everyone else. However, for many criminals, it takes some practice to disguise their motives. Try to use objective criteria in evaluating customers. The following pointers may be useful.

Watch for unusual or suspicious behavior by a purchaser who:

- Seems unfamiliar with details of using pesticides
- Acts nervous, seems uneasy or vague, and avoids eye contact
- Demands immediate possession of purchased material instead of future delivery
- Asks for material in smaller individual containers rather than in bulk
- Insists on paying in cash instead of using a check or a credit card.

## Section 8: Who should you contact if you suspect theft?

SLIDE 29

- Notify your manager.
- Report any thefts of pesticides and/or equipment and any suspicious behavior to your local law enforcement agency.
- Contact the FDACS Agricultural Law Enforcement Office at 1-800-342-5869 (Florida residents only).

## Section 9: Summary

SLIDE 30

1. Because pesticides are toxic, they could be misused to intentionally harm people, animals, or crops.

2. A pesticide is any substance used to control a pest – including insects,

rodents, and weeds.

3. Employees have a right to know what chemicals they are working with, the hazards of those chemicals, appropriate personal protective equipment, and appropriate first-aid and medical response.

4. We identified three types of pesticide misuse and methods of prevention, response and reporting for each one:

- Unintentional misuse
- Unintentional release
- Intentional misuse

**SLIDE 31**

5. Examine storage and handling procedures and develop a security plan that covers the following areas:

- Storage
- Transportation
- Personnel
- Disposal
- Response

6. Suspicious Behavior

- Watch for unusual or suspicious behavior.
- Contact your manager or local law enforcement to report suspicious persons.

## Part 6 — Questions and Discussion

**SLIDE 32**

You may wish to have a discussion period where your audience can talk about what they have just learned. Here are some suggestions to start the discussion.

- Ask participants to talk about why a good security program is important – whether or not they think theft or misuse are likely.
- Ask participants to share any relevant stories.
- Ask participants what they learned in the unit that they could implement immediately.

## Part 7 — Post-Test

If you choose to administer the post-test, do so now. You have already prepared the audience for this when you administered the pre-test. Just remind them that it will take only a couple of moments.

## Part 8 — Table-top Exercise

At the end of this lesson plan, there is a scenario which participants can use to further explore the issues and to examine the issues in a different way. The table-top exercise is useful but optional; the presenter may judge that the table-top is not appropriate for the audience or that there is not enough time for it. See the table-top exercise for instructions.

The table-top exercise is helpful for further development and understanding of the issues in this session. However, the presenter may wish to substitute *Unit 6 — Developing a Hazard Mitigation Plan* in which participants learn about hazard mitigation and are guided in developing a mitigation plan for their operation.

## Part 9 — Session Evaluation

An evaluation form is supplied in this booklet. Ask participants to take a few minutes to fill out this form and turn it in. If you allow participants to fill these forms out at home at return them to you at a later time – even later in the workshop – the chances of getting any evaluations are greatly reduced.

## Part 10 —Adjourn

Thank the participants for their attention and encourage them to adopt a security program for their pesticides.

## Additional Resources

The Environmental Protection Agency offers a number of materials on its "Homeland Security Measures for Agriculture" Web page <http://www.epa.gov/agriculture/thom.html>. Of particular interest may be "Chemical Accident Prevention: Site Security," which reviews an overall security plan for a chemical storage site.

The National Institute of Justice (a division of the U.S. Department of Justice) has developed a very thorough and formal program titled "Method to Assess the Vulnerability of U.S. Chemical Facilities." The twelve-step assessment tool was developed by the National Institute of Justice in partnership with the Department of Energy's Sandia National Laboratories. Locate this publication at the National Criminal Justice Service Web site <www.ncjrs.org>. Follow the "Publications (alpha list)" link and find "Method to Assess the Vulnerability of U.S. Chemical Facilities." These materials are likely to be helpful to larger operations.

# *Homeland Security and Pesticides*— Pre-test

This pre-test is intended to gauge your level of knowledge before participating in the *Homeland Security and Pesticides* training. Please answer all the following questions to the best of your ability.

1. What property of pesticides makes them potential weapons?

   _____ .

2. A pesticide is used only to control insects? (Circle one.) TRUE FALSE

3. Laws that define what information an employer must supply to employees that work with chemicals are called _____ laws.

4. List three types of pesticide misuse.

   _____

   _____

   _____

5. A security plan for pesticides should cover five aspects of handling. List as many as you can.

   _____

   _____

   _____

   _____

   _____

6. How should you respond to suspicious behavior or thefts of pesticide?

   _____

# *Homeland Security and Pesticides*— Post-test

This post-test is intended to gauge your level of knowledge after participating in the *Homeland Security and Pesticides* training. Please answer all the following questions to the best of your ability.

1. What property of pesticides makes them potential weapons?

   _____ .

2. A pesticide is used only to control insects? (Circle one.) TRUE FALSE

3. Laws that define what information an employer must supply to employees that work with chemicals are called _____ laws.

4. List three types of pesticide misuse.

   _____

   _____

   _____

5. A security plan for pesticides should cover five aspects of handling. List as many as you can.

   _____

   _____

   _____

   _____

   _____

6. How should you respond to suspicious behavior or thefts of pesticide?

   _____

# *Homeland Security and Pesticides*— Answer Key

1. What property of pesticides makes them potential weapons?

   *Toxicity or poisonous nature*

2. A pesticide is used only to control insects? True or False

   False

3. Laws that define what information an employer must supply to employees that work with chemicals are called _____ laws.

   Right-to-Know

4. List three types of pesticide misuse.

   • unintentional misuse
   • unintentional release
   • intentional misuse

5. A security plan for pesticides should cover five aspects of handling. List as many as you can.

   •
Storage
   • Transportation
   • Personnel
   • Disposal
   • Response

6. How should you respond to suspicious behavior or thefts of pesticide?

   Contact your manager or local law enforcement

# Participant's Evaluation of *Homeland Security and Pesticides*

Please circle the number that best expresses your opinions for each of the following statements. Circle only one number per question for questions 1 through 4.

| | | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|---|---|---|---|---|---|
| 1. | The training unit's format was easy to follow. | 1 | 2 | 3 | 4 | 5 |
| 2. | The information presented is useful to me. | 1 | 2 | 3 | 4 | 5 |
| 3. | The time it took to complete the training session was acceptable. | 1 | 2 | 3 | 4 | 5 |
| 4. | As a result of this session, I understand better how to work with pesticides. | 1 | 2 | 3 | 4 | 5 |

5. We welcome your comments about this program:

_____

_____

_____

_____

_____

Please use the back of this sheet for any further comments.

Thank you for your time!

# Table-Top Discussions

Participants should use the following information in small groups to apply what they have just learned and to brainstorm their responses to this scenario. After the groups have worked separately, it may be useful to bring them back together and have a reporter from each group describe how their group responded to the discussion questions.

Four table-tops for pesticide audiences are included:

- Who's Bugging Who?
- The Old Way Is the Best Way
- The Case of the Missing B-Gon
- Bad Day at the Flying T

## "Who's Bugging Who?"

**Company Background**

Green Thumb Sprayers and Pesticides, Inc. was established in 1954, and they are a very upstanding business in the area. They have had no convictions or a record of any prior pesticide misuse. They are a fairly large business, employing over 250 people.

**Scenario**

Note: "Who's Bugging Who?" is a work of fiction. Characters in this story are fictional and not intended to represent any real person.

You have recently been employed by Green Thumb Sprayers and Pesticides, Inc. and you notice that pesticides are being mixed in improper proportions. When you approach a pesticide applicator about dosing, he tells you not to tell him how to do his job. He then goes on to explain that the apartment complex he is going to spray has been a long-time client of Green Thumb, and the pests they are spraying for have become more and more resistant to lower doses of the pesticide. He says he has been increasing the mixture bit by bit for about one year. When you looked a little farther into the history of the apartment complex you find that tenants have been complaining of slight headaches and flu-like symptoms for about 6 months.

**Questions/ Discussion**

1. Should you confront upper management before saying anything to officials?

2. Did management know about this before it began happening?

3. What should you do?

4. What are some possible alternatives to mixing products in extreme doses?

# "The Old Way is the Best Way"

Scenario

Note: "The Old Way is the Best Way" is a work of fiction. Characters in this story are fictional and not intended to represent any real person.

As a local Extension agent, you have become familiar with the variety of agricultural producers in your county. You've noticed that the producers of one commodity tend to use large amounts of B-Gon, a popular pesticide in the area, early in the growing cycle. Based on your training, this use of pesticide is inappropriate, but when you ask farmers, they tell you that in its early growth stage, this commodity is subject to extensive leaf damage from grasshoppers and beetles. Consulting university experts helps you to understand that this early leaf damage has almost no impact on the eventual harvest and does not require pesticide treatment. Further, your consultants feel that the farmers are unnecessarily putting themselves and the environment at risk by exposure to high levels of B-Gon. When you explain this to farmers, they object with the fact that they have worked this way for years without damaging their harvest. It doesn't make any sense to them that eliminating a treatment could have any other effect but to reduce their harvest. They also say that you have never seen the kind of damage insects do to the young plants. B-Gon is widely advertised and the B-Gon representative has lived in the community for many years. They can not accept that he would encourage them to do anything that would damage their health or even waste their money. Producers did not credit the health impacts of the pesticide because they did not know anyone who had been harmed.

Questions/ Discussion

1. These agricultural producers have entrenched attitudes based on their experience and on "common sense." What is the best way to convince these producers to adopt a science-based approach?

2. Discuss the ideas of chronic exposure and long-term health effects. Give examples of the chronic exposures, for example chemicals, smoking or repetitive motion, that lead to health impacts. Do you know anyone who has suffered health impacts from chronic exposure?

3. How would you explain chronic exposure and health effects to these producers?

4. What are your basic attitudes toward the health of the environment?

# "The Case of the Missing B-Gon"

## Scenario

Note: "The Case of the Missing B-Gon" is a work of fiction. Characters in this story are fictional and not intended to represent any real person.

During a monthly inventory, you notice that there is less than you expected of B-Gon, a pesticide you use occasionally. You adjust your inventory to reflect the actual amount on hand. In each of the following months, you notice a similar shortfall. After this period of time, the total amount of B-Gon that has been removed is significant. You have talked to your applicator about how much is being applied to your fields and still you cannot account for the missing pesticide. The amount taken is not really enough to treat a field. You suspect that one of your workers is taking B-Gon home, maybe to treat a garden plot, however, B-Gon is not indicated for home or small-scale use without careful mixing, however, some of your workers may be familiar with how to do this.

## Questions/ Discussion

1. As an owner, what is the level of your concern about this missing pesticide and what is the basis for that concern?

2. If this producer came to you and asked you how to handle this situation, what would you advise?

3. If you decide to notify the authorities, who would you call and what would you expect them to do? What might you want them not to do?

# "Bad Day at the Flying T"

Scenario

Note: "Bad Day at the Flying T" is a work of fiction. Characters in this story are fictional and not intended to represent any real person.

It was early Wednesday morning. Josh, owner of Flying T Aerial Application Services, was supervising the mixing of pesticide for dusting some large potato fields. This job was for an important client and it was a busy time of year. If these fields did not get dusted within a day or two, the likelihood of serious crop loss was imminent. His regular pilot, Janice, had been out all week with a serious case of the flu, and she would probably be out for another few days. She should have gotten a flu shot, he thought to himself. A lot of his business depended on her, and normally she was 100% reliable.

All of Janice's regular backups were busy, but after a flurry of early morning phone calls, Josh had located Dan, who had flying experience. Dan seemed serious, maybe sullen, to Josh. Dan volunteered that he had recently fallen on hard times after some kind of run-in with county building inspectors... something about heavy fines and legal fees... something about property he owned downstate. He needed the money. Dan was obviously angry, and Josh sensed that there was more to the story. Dan said that he would be over as soon as possible.

The mixing was finished around 9 and Josh's technician, Zac, took the job of loading the pesticide mix into the airplane on his own. Josh returned to the office. He had a lot of calls to make.

Josh looked out his window around 10:30 as Dan rolled into the parking lot. It was a little later than Josh had hoped for. When Josh shouted out hello, Dan barely acknowledged him. Josh went over the job with Dan and showed him on a map where the fields to be treated were. Josh left Dan to go through pre-flight routines. Josh told Dan that Zac would have the crop duster ready and could give him any help he needed.

Zac came into Josh's office around 11:30. He flopped down on the couch next to Josh's desk. Josh didn't even look up. He knew Zac had lunch on his mind and any second he would make a suggestion.

"Plane loaded?" Josh said offhandedly.

"You bet." Zac replied. "So what's up with Dan?"

"What do you mean?" Josh asked.

"Well, you know how he's kind of down?" Zac was trying to get more of

Josh's attention.

"Yeah." Josh was still focused on the spreadsheets on his computer screen. "Yeah, well I say "down", but I mean "out of it." I walked by the chart room a couple seconds ago, and he's on the phone. I don't know who he was talking to, but he was furious..." Zac stopped mid sentence.

Zac loved to tell a story without a point, and Josh was never sure how to respond, so he didn't, except to say, "So..."

Zac continued, "So... I stopped in the doorway for a second. He didn't really look, but I'm sure he noticed me. He got quiet and very intense on the phone. He's a strange guy. I think there's something going on with him."

Josh glanced over at Zac, "Zac... too much television."

"No, man, I'm telling you. Something's going on." Zac paused for a few seconds. "So, how about Belle's for lunch? Somehow, playing with pesticide gives me a taste for barbeque."

Josh chuckled and typed an entry into the spreadsheet. "Sure. Let's wait til Dan gets off the ground, and then we'll go. He'll be gone a couple of hours."

"Sure. I'll get washed up." Zac jumped up and left the room.

* * *

Josh and Zac got back to the office around 2. They were at lunch longer than usual. Once again, Zac had provoked Josh into an argument about college football.

The building was empty. Josh settled down at his desk and started to focus in on his spreadsheets again. The phone rang. Josh picked it up absent-mindedly and spoke.

"Flying T Aerial Application Services. Josh Taylor speaking. How can I help you?"

The voice on the phone said, "Mr. Taylor, this is Sargent Emily Townsend at Patrick Air Force Base. Are you the owner of an AT-802 Air Tractor, N2371?"

Josh was puzzled — almost alarmed. Zac stuck his head in the door with a

question on his mind, but when he saw Josh's expression, he asked, "What's up? Who's that on the phone?"

Josh looked over at him and waved him in. Josh motioned for Zac to sit on the couch. Zac continued to mouth the words, "Who's on the phone?"

Josh answered, "Yes, that's my plane."

The sargent continued, "Mr. Taylor, there's been an incident with your plane. Basically, it crashed in the parking lot next to the Brevard County Government Center down here."

Josh was stunned. Zac was gesturing wildly to find out what was going on.

The sargent spoke, "Mr. Taylor?"

Josh responded, "Umm, just a second." He held his hand over the mouthpiece for a second and said to Zac, "It's Patrick Air Force Base. This sargent says Dan's plane is somewhere in Titusville. It crashed or something."

"Crashed? in Titusville? What? Is this for real?" Zac said.

Josh motioned for Zac to calm down and returned to the phone. "Sargent Townsend, I don't know what to say. Is this for real? Uh... Where's the pilot?"

"Mr. Taylor, I know this will seem incredible, but apparently your pilot, Mr. Hawkins, filed a flight plan for some crop dusting this morning, but instead he headed straight down the coast. I'm not sure what he was planning..."

Josh interrupted, "Where is Dan, uh, Mr. Hawkins? Is he alright?"

"Mr. Hawkins is in serious condition in Holmes Memorial Medical Center in Melbourne. I'm amazed he's even alive. He was flying somewhat erratically. We determined that he was flying without a flight plan when he was about 20 miles north of the Cape. A couple of jets were sent up to intercept him and force him down. He wouldn't answer any radio communication. We were trying to direct him to an airfield. We think he wanted to crash the plane into the Government Center. Our pilots tell us he came in low, but he misjudged his approach and hit the ground." Townsend paused.

Josh was now trying to sort out the events and their implications in his mind. "Was anyone else hurt?"

The sargent answered, "No, but we've got quite a mess. The wing clipped a truck in the parking lot and the plane tumbled in the crash. Whatever he had in the tanks... well, he had a full load."

"Oh my god. He hadn't dumped the pesticide yet..." Josh sat down heavily.

The sargent continued. "I guess not. We've got a mixture of pesticide and fuel all over the place. We've evacuated the building and traffic has been rerouted. The hazmat teams have the whole area cordoned off."

"I don't even know where to start. What do you need from me?" Josh asked.

"At this point, the Air Force doesn't need anything. I'm calling you because we just happened to be the first to pick up on Mr. Hawkins' flight, and I became a pivot in the command system. But as I said, we've got hazmat teams and DOT on the scene."

"What's going to happen to Mr. Hawkins?"

"Well, Mr. Taylor, Mr. Hawkins has broken quite a few laws and caused some fairly serious problems. We've already reported all this to the FBI and the FAA. I think the Brevard sherriff's office will be in touch with you shortly. If Mr. Hawkins recovers, he will face numerous criminal charges. Unfortunately, all that is going to be federal, so he's in very serious trouble," Townsend paused again to let Josh take in these new issues.

"That is, if he recovers. The hospital won't release information to anyone but a family member at this point. I think the local police have probably contacted them by now, if the FBI hasn't. One thing I can tell you is that if you turn on CNN, you'll get a little more information with pictures. I work with media quite a bit, and you should be prepared. National and local press are going to start calling as soon as the official report is filed. Probably later this evening."

Josh thought for a second and then spoke, "Do I need to come get my airplane?"

"No, Mr. Taylor. As far as I know, the airplane is a total loss as far as insurance goes, and because it is at the center of a hazmat incident, there won't be any salvage. It will be disposed of down here. And I can't really say what your liability is. There will be charges for the clean-up operation, but how much of that will come back to you, I don't really know. I probably shouldn't even get into that... probably shouldn't even have said that much."

"I understand. No, that's fine. I'll try to contact someone up here about that part of it and I guess I'll just wait for FBI to call me." The full impact of the conversation was beginning to settle in.

Townsend spoke, "I'm sorry about all this, Mr. Taylor. I think that's all I have for you. Do you have any other questions?"

"No. Thanks for calling. I've got a lot to think about." Josh spoke slowly.

"Very well, Mr. Taylor. Good luck. And if there's anything you need from us, just call the Air Base Command Center and ask for Sargent Emily Townsend."

"Uh, thank you. Good-bye."

"Good-bye." Josh hung up the phone and sat quietly, thinking.

Zac was about to explode, but he held it in as long as he could. Maybe one second?

"FBI?" Zac shouted. "What is going on? Where's Dan? Where's the plane?"

Josh slowly reported to Zac everything he had learned from his conversation with Sargent Townsend.

Zac sat in rare silence for a moment to try to take it all in. "So, what? We sit here and wait for the feds to call?" he said quietly.

Josh answered just as quietly, "I guess so."

Questions/ Discussion

1. a. Make a list of all the crimes and illegal acts committed by Dan Hawkins.

   b. Add to the list in (1) agencies you expect to respond/act on those activities.

2. What are Josh Taylor's personal liabilities?

3. What are Josh Taylor's corporate liabilities?

4. What signs in Dan Hawkins behavior or attitude warned of the incident he caused?

5. What do you do if you were Josh?

6. How sensitive is your company to the negative publicity that may result from this incident?

7. How aware were you of this individual's situation and its potential?

8. How do you deal with 'damage control' for the customer who needed his potatoes dusted TODAY?

9. What changes might you make in your hiring and disciplinary policies?

Points for Discussion

1. Make a list of all the crimes and illegal acts committed by Dan Hawkins.
   - Theft of the aircraft
   - Violating restricted airspace
   - Flying too low in a developed area
   - Flying the aircraft outside a filed flight plan
   - Intentionally causing a spill of hazardous materials
   - Public endangerment
   - Others?

2. Add to the list in (1) agencies you expect to respond/act on those activities.
   - Brevard County Sheriff's Office
   - Titusville Police Department
   - Local Emergency Planning Council
   - Federal Bureau of Investigation
   - Federal Aviation Authority
   - National Transportation Safety Board
   - Emergency Medical Services
   - Fla. Dept. of Agriculture and Consumer Services Law Enforcement

3. What parties could be liable for the incidents in this story?

   First, in a legal sense, when someone is liable, that means they have been formally determined to be responsible for some act or its result. Before that determination is made, a party is only potentially liable. Aviation liability is a very complex area of law. Air travel is possible because of a very extensive system involving regulatory agencies, aircraft

owners, aircraft manufacturers, pilots, mechanics, aviation companies, airports, etc. When an airplane flies, every one of these agencies, corporations or persons are responsible for getting the airplane up and down safely. Liability is often distributed proportionally, that means that each party can be held liable for how much they contributed to the incident. In this case, Dan Hawkins seems most liable for the damages at the crash site, but a case can also be made as to how much Josh Taylor knew about Hawkins' readiness for flight. To guide discussion of this question, have participants list all the parties that played a role, and then think about who might sue who and why.

4. What signs in Dan Hawkins behavior warned of the incident he caused?

   Participants must decide whether Josh Taylor should have trusted Dan Hawkins. Josh knew that Dan was upset, but could he have known that Dan might "go nuts" and misuse the aircraft? Guide participants to discuss what assumptions they might make or actions they could take in a similar situation.

5. How would your company handle the negative publicity from this event?

   Our natural first reaction when we are pressured or under attack is to become defensive --- sometimes in a belligerent way, sometimes in a secretive way. Time and again, it has been shown that the best strategy is to get ahead of the questions, to reach out to media and get your side of the story out there. Secretiveness only suggests that something is being hidden, and being belligerent only makes enemies of the very people who can help you get your story out. Participants could discuss what interactions they have had with media and whether their operation has a plan and/or training in how to handle public relations in the event of a negative incident.

6. How do you deal with 'damage control' for the customer who needed his potatoes dusted today?

   With all the excitement, it would be easy to forget that there is still a customer out there who needed your services on a very time-sensitive basis. This is another case where getting ahead of the situation is important. Though the cause of this situation was unusual, the situation itself is not. Participants could discuss how best to deal with the customer.

# PowerPoint Slides 1-3

Agrochemicals and Security

## *Homeland Security and Pesticides*



## Learning Objectives

As a result of this session, participants will:

- Be aware that pesticides can be used to intentionally harm humans, animals and crops.
- Understand behaviors that may indicate suspicious activity.
- Understand that specific security measures can prevent unlawful access to pesticides.



## Pesticides and Terrorism?

- Investigations after the 9/11 attacks raised the concern that terrorists might use crop dusters to spray pesticides on large crowds.
- Pesticides have not been used often in terrorist attacks.

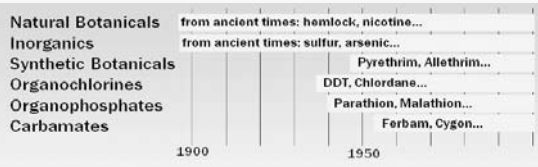
# PowerPoint Slides 4-6

## What is a pesticide?

- A pesticide is any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest.
- "Pesticide" includes herbicides, fungicides, insecticides, or any other substance used to control pests.
- Pesticides are carefully regulated by the Environmental Protection Agency (EPA), which reviews studies to determine the risks posed by individual pesticides.

Agrochemicals and Security: Homeland Security and Pesticides Pest-04

## History of Pesticides




Other Milestones

| | |
|---|---|
| 1750 | Modern Chemistry |
| 1830 | Organic Chemistry |
| 1914-18 | World War I |
| 1939-45 | World War II |
| 1962 | *Silent Spring* published |
| 1963-73 | Vietnam War (Agent Orange) |
| 1970 | EPA created |
| 1972 | DDT withdrawn |

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## Right-to-Know

- Pesticides must be labeled. The "label" includes the actual label on the container and literature that comes with the pesticide.
- Employees have a legal right to know what chemicals they may be exposed to and to review the "label" or Material Safety Data Sheets for those chemicals.
- A pesticide label is a legal document.

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# PowerPoint Slides 7-9

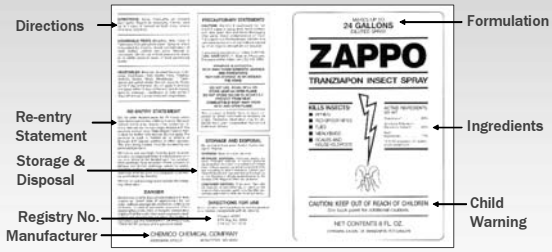
## Material Safety Data Sheets

MSDS give the user information needed to use the chemical *safely,* including:

- Manufacturer contact information
- Components, contaminants, and exposure limits
- Fire and explosion data
- Toxicity data
- Health hazards
- Effects of exposure
- Emergency and first aid
- Appropriate protective equipment

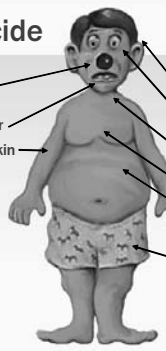


## Sample Pesticide Label






## Pesticide Hazards



How pesticides get in
- Inhalation
- Through food or water
- Absorption through skin

Exposure levels
- Chronic exposure
- Acute exposure

Health effects (depends on specific pesticide)
- Central nervous system
- Eye irritation
- Hormone imbalance
- Cancer
- Liver damage
- Skin irritation
- Reproductive effects

# PowerPoint Slides 10-12

## Misuse of Pesticides

- Unintentional Misuse
- Unintentional Release
- Intentional Misuse

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## Unintentional Misuse

Results from poor knowledge of correct use of pesticides or equipment…

- Prevent through effective training, certification and supervision.
- Respond by correcting practices through prevention program.
- Report when unintentional misuse could have impacts on health, environment, food products.

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## Unintentional Release

Happens when large quantities of pesticides are spilled or suddenly released…

- Prevent through effective training, certification and supervision
- Respond with appropriate spill kit (depending on scale of event)
- Report to authorities immediately

Agrochemicals and Security: Homeland Security and Pesticides Pest-12

# PowerPoint Slides 13-15

## Intentional Misuse

Happens when pesticides are used in acts of revenge, terrorism, etc....

- Prevention, response and reporting are covered in remaining slides.



## Improving Security

- **Storage**
- **Transportation**
- **Personnel**
- **Disposal**
- **Response**



## Security: Storage

How easy would it be for pesticides to “disappear” from your facility?

# PowerPoint Slides 16-18

## Security: Storage

- Maintain inventories so that you always know the exact quantities of pesticides you have.
- Use logbooks to keep track of who removes pesticides from your facility.
- Store pesticides in a building which can be locked or in a fenced enclosure with a locked gate.
- If appropriate, provide a second security perimeter, such as a fence with a locked gate surrounding your storage facility.



## Security: Storage

- Perform a walk-through and walk-around daily to check for attempted entry, vandalism, and structural integrity.
- Provide good lighting on all sides of your storage facility.
- For some facilities, install security systems, such as alarms and camera systems, and make sure they are properly maintained.



## Security: Transportation

**Is transportation the weak link in your security?**

# PowerPoint Slides 19-21

## Security: Transportation

- Create a paper-trail for any pesticides you ship.
- Ship pesticides in a locked vehicle.
- Go directly to delivery point when possible, taking the best route available to avoid high population areas, tunnels, and bridges.
- Exercise extreme caution if it becomes essential to stop. Avoid unguarded and unlighted areas where theft is a substantial risk and be on your way as soon as possible.
- Be alert to vehicles following your truck, strangers asking questions, or anyone snooping around your cargo.

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## Security: Transportation

- Do not pick up hitchhikers, do not talk about your cargo on CB radio, and do not discuss your cargo with those not involved.
- Always telephone your customer if you find you will be late for a delivery.
- Check your load at delivery to ensure no product is missing. Do not leave product at field site unless it is well attended or secured within buildings. Always obtain a signed delivery ticket.
- Carefully check background of all new drivers. Every driver should be properly licensed and trained in good practices for handling fertilizer and pesticide chemicals that may be hazardous in the hands of dangerous people.

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## Security: Personnel

**Do you know your employees?**


**Do you know who has access?**

Agrochemicals and Security: Homeland Security and Pesticides Pest-21

# PowerPoint Slides 22-24

## Security: Personnel

- Develop effective hiring and labor relations policies.
- Consider background checks for current/new employees, particularly if the person handles hazardous materials.
- Consider fingerprinting and photographing employees who handle hazardous materials.
- Be aware of personal identity theft, such as stolen Social Security numbers, references, etc.
- Request employees to watch for suspicious activities and ask persons they don't recognize to identify themselves and state their reason for being on the property.



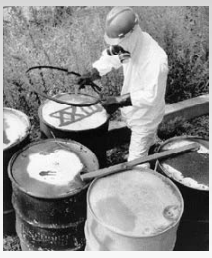
## Security: Personnel

- Adopt a company security whistleblower protection policy.
- Know who has keys and access to hazardous material storage areas.
- Retrieve keys and employment identification cards from an employee and change computer access passwords when their employment ends.
- Assess a worker's violence potential and take appropriate security precautions when terminating or disciplining an employee.



## Security: Disposal

**Do you have a plan for safe and secure disposal?**



Hazmat worker inspects aging chemical drums abandoned in a field.

# PowerPoint Slides 25-27

## Security: Disposal

- Maintain security over material which is being disposed of until it is claimed by appropriate authorities.
- Arrange for prompt and safe disposal of materials.



## Security: Response

**Do you have a formal response plan?**

**Do your employees know it?**



## Security: Response

- Develop an emergency plan for your facility. Train your workers in the plan and rehearse it with them.
- Post emergency response numbers, including fire, law enforcement, medical contacts, and poison control in several locations in your facility. Make all employees aware of these response numbers.
- Report to appropriate authorities any suspicious activities, vehicles, persons, threats to personnel or facilities, sabotage/vandalism to facilities or equipment, and thefts, inventory shortages, or missing products that could pose a risk to public health or safety.

# PowerPoint Slides 28-30

## Identifying Suspicious Behavior

Watch for unusual or suspicious behavior by a purchaser who:

- Seems unfamiliar with details of using fertilizers
- Acts nervous, seems uneasy or vague, and avoids eye contact
- Demands immediate possession of purchase material instead of future delivery
- Asks for material in smaller individual containers rather than in bulk
- Insists on paying in cash instead of using a check or credit card



## If someone is acting suspicious...

- Notify your manager.
- Notify local law enforcement.




## Summary 1

1. Because pesticides are toxic, they could be misused to intentionally harm people, animals, or crops.
2. A pesticide is any substance used to control a pest – including insects, rodents, and weeds.
3. Employees have a right to know what chemicals they are working with, the hazards of those chemicals, appropriate personal protective equipment, and appropriate first-aid and medical response.
4. We identified three types of pesticide misuse and methods of prevention, response and reporting for each one:
   - unintentional misuse
   - unintentional release
   - intentional misuse

# PowerPoint Slides 31-33

## Summary 2

5. Examine storage and handling procedures and develop a security plan that covers the following areas:
   - Storage
   - Transportation
   - Personnel
   - Disposal
   - Response

6. Suspicious Behavior
   - Watch for unusual or suspicious behavior.
   - Contact your manager or local law enforcement to report suspicious persons.



Agrochemicals and Security: Homeland Security and Pesticides

## Questions and Discussion



**Agrochemicals and Security:**
**Homeland Security and Pesticides**

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IFAS EXTENSION

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