

Chemical Safety

Slides 1, 2
(Introductions)

Slide 3
The three most important words in dealing with chemicals.

Slide 4
Here are the different pesticides. You can see that the term pesticide is generic and comprises all the rest of the -cides. “-cide” means “to kill”.

Slide 5
It is very important to understand what is meant by LD-50 and the toxicity of the materials that you use.

Slide 6
Here are the signal words that are listed on every pesticide. Make sure you know the difference between each.

Slide 7
There are three main routes of exposure to the human body. All are dangerous and proper clothing and equipment will help minimize exposure.

Slide 8
These are some of the most common pesticides available to the general gardener at most hardware stores and nurseries.

Slide 9
The product on the left has a signal word of Danger, the one on the right Caution. The Danger label is because of the carrier having properties that can cause permanent eye damage.

Slide 10
The one on the left is labeled Caution and the one on the right as Warning.

Slide 11
These are the proper ways to handle chemicals. As chemicals age, they will hydrolyze and become ineffective. Some chemicals can only be used by licensed applicators and are restricted for general use. Because some chemicals are expensive or a person could never use the full amount in a lifetime, rosarians will share the chemical among friends. It is illegal to split a chemical container. The chemical must remain in the original container.

Slide 12
Locked storage shed on left – the correct way, and on right - a no-no!

Slide 13

To make sure you do not mix herbicides in your pesticide sprayer, buy two sprayers and label the one as herbicide only.

Slide 14

Mixing is the most dangerous portion of spraying.

Slide 15

The secret to proper mixing of chemicals is wearing proper clothing, safety equipment, and understanding each chemical and exposures. Mixed chemicals will decompose quickly so they should never be stored.

Slide 16

The labels contain all information a homeowner will need to know.

Slide 17

This is a Material Safety Data Sheet (MSDS) for a fungicide. It contains more specific information than the label.

Slide 18

It is a good idea to have a list of the proper mixing ratios for each of your chemicals. Labels can age or get lost. Never mix more than the amount recommended on label.

Slide 19

Always wear protective clothing. Chemicals can enter the body in one of three ways, so protect yourself from chemicals, especially the concentrated form, which is the most dangerous and the one rosarians are commonly exposed to.

Slide 20

Some of the typical protection available. The dust mask on the upper left is only good for dusts and will not control liquid pesticides. The mask on the lower left works well for chemical vapors if the cartridges are for hydrocarbon control.

Slide 21

The dos and don'ts of spraying.

Slide 22

This outfit would definitely scare your neighbors!

Slide 23

There are many new effective pesticides that are low in toxicity. Consider using these before the more toxic ones.

Slide 24

(The End)