

Basic Guidelines for Correct Pesticide Usage

What is a pest? A pest is anything that causes a nuisance, blight or annoyance.

Are all pests bad? Not necessarily.

What is a pesticide? Pesticides are chemical used to control pests. In most state and federal laws, they are defined as ‘economic poisons’ –substances used to prevent, kill, repel, or mitigate the harmful effects of pests.

Pesticides may be useful when nonchemical methods fail to provide adequate pest control. Pesticides are valuable gardening tools, but they must be selected and used with personal and environments safety in mind. As with all tools, it is important to use the right pesticide for the job. Pesticides must be used properly to be effective. Safe use requires careful management.

What is IPM? Integrated Pest Management (IPM) is an ecological approach to pest management using nonchemical and chemical treatments to reduce pest populations to an

acceptable level in a safe and effective manner. (There will always be something going on; the key is to keep pests to a controlled and manageable level.)

I’ve heard the phrases, “cultural practices” and “cultural controls”. What does that mean for my garden?

Cultural practices and cultural controls are those things a gardener physically does to prepare or modify the environment for their plants and to control pests. They include:

- Removing plant debris
- Remove diseased plants
- Choose resistant or tolerant varieties of plants
- Pruning to cut out affected plant parts
- Soil test
- Weed control
- Mulching
- Crop rotation
- Insect identification and control

First things first ... Pest Management and Decision Making

Before using any pesticide, there are important questions to ask and decision to make:

- Is the problem actually caused by a pest?
- If so, what kind of pest?
- Is the problem severe enough to require action?
- Can the test be controlled at this stage of its life or growth cycle?
- Are pesticides registered for the pest and site?
- Is pesticide use the best management option? (Have I tried any cultural practices?)
- Is pesticide use cost effective?

Factors to consider when making pest management plans:

- ✓ Pest life cycle and habits,
- ✓ Pest populations size and distribution,
- ✓ Factors that attracted the pest to the site,
- ✓ Management options, both chemical and nonchemical; and
- ✓ Ways to prevent future problems.

The Pesticide Label

There are two types of pesticides: Unclassified (for general use; readily available) and Restricted Use (certified applicators license is required; typically used in commercial applications). **The label contents for both are the same!**

The LABEL IS THE LAW! The product label on all containers is an agreement between the EPA, the product registrant and the user (you, the homeowner). By law you are required to read and follow all label instructions.

ILLEGAL USES OF PESTICIDES:

- ☠ Use on plants, animals or sites not listed on the label;
- ☠ Higher rates;
- ☠ More frequent intervals;
- ☠ Ignoring other directions; and
- ☠ Not using Personal Protection Equipment (PPE).

Allowable Uses:

- ☺ Lower rates;
- ☺ Less frequent;
- ☺ Target pest is not on the label but the plant, animal or site is; and
- ☺ Unless prohibited, mix with fertilizer OR other pesticides.

Sorting through the confusion ... the required label components and sections are:

- **Identifying information;**
- **Precautionary statement;**
- **Directions for use** (how much to use, on which pests, on what plants, rates & frequency of application, additional instructions for before or after the application, etc.);
- **Conditions of sale** (warranty and liability);
- **Identifying information** – such as the brand name;
- **Ingredient statement** (*the fine print! Identifies the products active ingredient, the chemical that targets the pest by its chemical name and its common name; amount as a % in the container and inert or “other ingredients”; which companies are not required by law to describe and could be more harmful than the active ingredient*);
- **Signal words** – these are always in large letters on the front and immediately below “Keep Out of Reach of Children” (which is required on EVERY label);
- **Precautionary statements;**
 - *Danger:* most toxic – skull and crossbones
 - *Warning:* medium toxicity; and
 - *Caution:* least toxic.
- **Possible Hazards** – what parts of the body to protect and lists PPE (Personal Protective Equipment (these are requirements not suggestions));
- **Environmental Hazards** – general statements such as “Don’t contaminate water” and/or Specific Precautionary Statements if known, such as (bees, birds, aquatics);
- **EPA registration number** – identifies the facility where the pesticide was made;
- **Name and address of manufacturer;**
- **Net contents;**
- **Misuse statement;**
- **Storage and disposal** (temperature, humidity, how to expose of excess product – *note that laws vary according to where you live*); and
- **Emergency assistance information.**

The Common Sense Approach

Drift Considerations

- ✓ Don’t overlook drift considerations, such as: spraying near an HVAC unit, open window, children’s play toys or equipment, pet play area, bird feeders, fish ponds, etc. Some chemicals are toxic to birds and fish at low concentrations.
- ✓ Cover or remove feeding stations, cover water sources, close windows, temporarily turn off the HVAC, etc.

Plan Your Attack

- ✓ Avoid walking through a recently treated area;
- ✓ Plan your application path and pattern in advance (don’t spray yourself into a corner);
- ✓ Consider using extra PPE (Personal Protective Equipment);
- ✓ Consider overhead applications with extreme safety; and
- ✓ Take appropriate steps to manage drift.

Storage

- ✓ Read the label for specific temperature and humidity information;
- ✓ Storage area should be high and dry;
- ✓ Proper ventilation is a must;
- ✓ Constant temperature is better than fluctuating temperatures;
- ✓ Have a spill kit on hand to eliminate contamination of other area; and
- ✓ NEVER remove a chemical from its original container.

Cleaning a Sprayer

- ✓ Read the label instructions for disposal thoroughly;
- ✓ Flush hoses and nozzles;
- ✓ Don’t dump the rinsate in one spot;
- ✓ Don’t dump rinsate down the sink or drain;
- ✓ Properly plan for the season to eliminate the need for leftover chemicals; smaller quantities are better to start with; and
- ✓ Have a separate sprayer for herbicides.

