



Using Pesticides Safely

Environmental Health Guide

Pesticides are chemicals used to kill or control plant or animal pests. If not used correctly, they can be dangerous to health and the environment.

Before using a pesticide, ask the question: “is it necessary?”

Preventing Infestation

In most circumstances, pest infestations can and should be prevented by eliminating the conditions they prefer or by creating barriers. Most pests thrive where there are low standards of hygiene, stagnant water, food scraps or uncovered compost. Effective barriers are fly screens; blocking gaps around pipes, screening or removing pooled water.

All foods should be stored in resealable containers with close-fitting lids and food scraps should be cleaned up regularly and thoroughly as even small scraps can support large populations of some pests.

Rubbish bins and waste food bins should have tight-fitting lids and be cleaned regularly. Waste materials should not be left in or near buildings where other products, which are liable to infestation, are stored.

Using pesticides

When prevention is not fully effective, application of a pesticide may be necessary. To ensure maximum safety when using a pesticide, apply the following principles:

1. Always read the label carefully and follow the instructions exactly.
2. Select the right pesticide for the job.
3. Buy the right amount.
4. Take appropriate precaution when preparing and applying pesticides.
5. Transport and store pesticides safely.
6. Dispose of unwanted pesticides and their empty containers properly.

Read the label carefully and follow instructions exactly

The label is the most important source of information for safe pesticide use. Read it carefully and familiarise yourself with all instructions and warnings before you use the pesticide.

The label tells you all you need to know about the product, including usage, mixing and safety instructions.

The information found on the label is the result of careful research and testing to determine how much pesticide should be used to obtain the required effect on the pest with least harm to non-target organisms.



A typical label will indicate:

- Toxicity
- Ingredients
- Use
- Application
- Protection
- Precautions
- Irritancy
- First Aid Instructions
- Manufacturer

Toxicity

Toxicity is indicated by one of the following three warning statements written in large print:

DANGEROUS POISON - indicating high toxicity

POISON - indicating moderate toxicity

CAUTION - indicating low toxicity

No warning on the label means the pesticide is of very low toxicity. Some manufacturers may include the word **WARNING** on the label although it is not required by law.

Ingredients

A list of the active ingredients and their concentrations must be included.

Use

This section describes the target pests and situations in which the pesticide should be applied. It is illegal to apply pesticides in a manner that is not indicated on the label.

Application

Method of application and quantity to be used are shown i.e. strength of the mixture, when and how to apply it, weather considerations.

Protection

This section recommends the type of protective clothing or equipment required to ensure safety of the operator e.g. gloves, boots, overalls, hats, goggles, respirator.

IT IS IMPORTANT TO WEAR THE RECOMMENDED PROTECTIVE CLOTHING.

Precautions

A number of precautions might be included such as do not eat, smoke or drink while using; wash hands and equipment thoroughly after use.

IF RECOMMENDED, ALWAYS WASH HANDS AND EQUIPMENT THOROUGHLY AFTER USE.

Irritancy

If the product might cause skin or eye irritation on contact, this will be indicated on the label.

First-aid instructions

This will include the appropriate first-aid action to take if the product is swallowed, splashed on the skin or in the eyes or if vapour or spray mist is inhaled. A contact number for the Poisons Information Centre is also often included on the label for use in instances of poisoning.

BE AWARE OF THE APPROPRIATE FIRST-AID INSTRUCTIONS.

Manufacturer

The name and address of the manufacturer are usually provided and sometimes a contact telephone number for additional information will be included.



Select the Right Pesticide for the Job

Pesticide categories are described in detail in our Guide 'Pesticide Safety - Pesticides and Health'.

Identify the pest(s) and the range of registered pesticides available for treatment of the pest(s).

Select the least hazardous product for the proposed use. This information is found in the toxicity warning statements on the labels.

Consider the form in which the pesticide is sold and the method of application, since these may increase the risk of exposure to the pesticide during or after its use. For example, herbicides packaged as granules, which are spread on the ground, are often safer than liquid forms, which must be sprayed, because spraying increases the risk of exposing the operator or bystanders, particularly if spray drift occurs. Granules however, may be more easily ingested by some non-target organisms such as birds; small children may also pick them up.

Similarly, some pesticides are designed to provide long term control of a pest. The increased time these pesticides are present may increase the risk of exposure. However, their use may be preferred because they avoid the need for repeated applications, which are necessary with some short term pesticides.

When in doubt ask the vendor or seek advice from your local nurseries, gardening clubs or agricultural colleges to help you choose the most appropriate pesticide for the job.

Buying the right amount

Buy only as much as you need for a particular task. This is not only economical but avoids problems with storage or disposing of leftover material.

Pesticides considered safe for domestic use are usually packaged in smaller quantities than those available to authorised persons only. Larger quantities can be sold only to holders of a permit or licence.

Take care in preparing and applying pesticides

People most at risk from the harmful effects of pesticides are those who prepare and apply the pesticide.

Many pesticides are sold as concentrates which must be diluted in water or some other solvent before they are applied. It is of utmost importance that instructions on the label, including the use of appropriate protective clothing, are followed.

In summary, to ensure safe use of all pesticides:

- * Read the directions and precautions on the label and follow them closely.

Wear protective clothing and equipment as required.

- * Have soap, water and towels nearby.
- * Open containers carefully on a stable surface where they will not tip or spill easily.
- * Open, pour and mix pesticides in a well ventilated area, free from obstructions and where bystanders cannot be contaminated.
- * Pour or decant from the container carefully to avoid splashing and spurting. **NEVER USE YOUR MOUTH TO SIPHON LIQUIDS OR TO BLOW OUT AN OBSTRUCTED SPRAY NOZZLE.**
- * Clean up any spills promptly. Cover with sand, sawdust or 'kitty litter' before sweeping up and disposing in a bin. Have these materials available in case of spills.
- * Avoid spraying on windy days when spray might drift onto yourself or others.
- * Avoid spraying/applying near food or people.



* Avoid the over-use of pesticides.

Transport, Store and Dispose of Pesticides Safely

Information on the transport, storage and disposal of pesticides is included in our Guide 'Pesticide Safety - Transportation, Storage and Disposal'.

No pesticide can be regarded as completely safe. However, follow these instructions and limit the risk of contamination to yourself, your family and the environment.

Other Environmental Health Guides on Related Topics

Pesticides and Health
Pesticide Transportation, Storage and Disposal
How Safe are Household Chemicals?
Lead Sources in the Home - What to Avoid
Cosmetic, Sunscreens and Herbal Products

Further Information

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