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Pesticide Spray Drift in Residential Areas

What is pesticide spray drift?

Pesticide spray drift occurs when a pesticide (for example, herbicide, insecticide, fungicide) stays suspended in air long enough to drift off the area being sprayed. Spray drift occurs downwind of the application site and, generally, the amount of drift decreases rapidly as distance from the area being sprayed increases. In residential areas, spray drift could result from applications to lawns, gardens and parks or from applications on nearby agricultural areas.

The potential for drift depends on many factors, including weather conditions and the type of spray equipment being used. That's why Health Canada's Pest Management Regulatory Agency ensures that pesticide labels have directions for use that include advice on how to minimize spray drift.

What does Health Canada do to protect against the risks of spray drift?

Under normal use conditions specified on the label, pesticide residues from spray drift are not a concern for users or bystanders. However, an excessive amount of spray drift into non-target areas has the potential to affect human health or the environment. For this reason, the impact of pesticide spray drift on people and the environment, which includes non-target plants and wildlife, is taken into account as part of the pesticide risk assessment process when a pesticide is considered for registration or is being reevaluated.

Human health risk assessments of pesticides examine direct exposure to users (both professional applicators and residential users) and bystanders who may be nearby during application. The potential for exposure to pesticide residues deposited on the ground or foliage after application is also considered. Health Canada must ensure that these anticipated exposures would not pose a health concern. Additional precautions are usually included in the label directions to further reduce potential human exposure to spray drift, such as directions to avoid spraying when bystanders are present.

Environmental risk assessments examine how a product travels through air, soil and groundwater and how long it stays in those areas. The potential for a product to adversely affect non-target plants and wildlife, both on the ground and in the water, is also considered. When necessary, Health Canada requires specific directions on the product label to minimize any potential effects to non-target plants and wildlife.



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Other examples of label directions that Health Canada may require to further minimize the potential for both human and environmental impacts from spray drift include:

- ▶ specifying the use of certain types of application equipment;
- ▶ instructions to spray only at certain times of the day and only in weather conditions that will minimize drift;
- ▶ specifying the amount of pesticide that may be used for a given area; and
- ▶ establishing an untreated area, called a buffer zone, between an area to be treated and any nearby area that must be protected.

What can I do to minimize the potential for spray drift?

If you wish to apply pesticides to your lawn or garden, it is important to be aware of jurisdictional (provincial, municipal, local) regulations concerning the use of pesticides. You can minimize pesticide use as well as the potential for exposure by:

- ▶ Learning about the pest and how to control it by using Integrated Pest Management (IPM) techniques. IPM is an approach that combines a variety of biological, physical, chemical and cultural tools to manage pests, thereby reducing reliance on pesticides;
- ▶ Reading, understanding and following all label directions and precautions;
- ▶ Considering the use of spot treatments on problem areas rather than a full (broadcast) application. This reduces spray drift as well as the overall amount of product used; and
- ▶ Avoiding spray applications when bystanders or animals are present.

To further reduce the potential for spray drift:

- ▶ avoid spraying under no wind, gusty wind, or high wind conditions; and
- ▶ avoid spraying at times of very low humidity, or during foggy or drizzly conditions.

It is good practice to notify neighbours of your intent to spray pesticides. They may choose to take additional precautions such as closing windows, removing and/or covering outdoor toys and eating areas, or by simply avoiding being in proximity to the area to be sprayed.

You may also choose to hire a professional pesticide applicator who is licensed/certified by your provincial regulator. Professional applicators are trained and certified to properly and safely use pesticides, including how to use appropriate application methods and choose equipment that minimizes spray drift. Professional applicators must follow provincial requirements for buffer zones and maximum allowable wind speeds for pesticide application.

Should I be concerned about exposure if I smell pesticides after an application to a neighbour's lawn or garden?

Each pesticide has its own specific vapour component, which accounts for the odour detected near application sites. Although some pesticides can have strong odours that may be disagreeable, the odour itself is not harmful and tends to dissipate quickly. Fertilizers may also be a source of strong odour.

What does Health Canada do to reduce the risk of spray drift?

Health Canada restricts how pesticides are to be used. Best management practices are encouraged and promoted through applicator training initiatives and label statements. Health Canada and provincial authorities have developed national standards for pesticide education, training and certification in Canada, which include factors affecting drift and methods to reduce potential for drift to non-target areas during application. There are also compliance and enforcement programs in place that monitor the use of pesticides.

Who should I contact if I have concerns about spray drift?

- ▶ Incidents of spray drift can be reported to your local provincial or territorial government.
- ▶ Questions about health or environmental concerns associated with pesticides can be directed to Health Canada's Pest Management Information Service.

Need more information?

Please visit Health Canada's website for further information on the topics discussed in this document.

www.hc-sc.gc.ca/pmra