



# Stormwater Pollutant Factsheet

## Pesticides, Herbicides, Fungicides, and Fertilizers

Chemicals used in landscaping and property maintenance can be toxic to plants and animals beyond the species they are intended to control. Once they have been applied, pesticides, herbicides, fungicides and fertilizers can wash into waterways when it rains. If applied improperly, they can result in severe impacts to nearby waterways, including algae blooms. Many also contain copper, zinc, or phosphorous which are also harmful to waterways.

### *Potential Sources of Pesticides, Herbicides, Fungicides and Fertilizers*

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- ◆ Landscaping activities
- ◆ Moss or fungus removal
- ◆ Pavement maintenance
- ◆ Pest management
- ◆ Disposing of landscaping chemicals
- ◆ Handling pesticides, herbicides, fungicides, or fertilizers as a raw material

### *Best Management Practices*

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- ◆ Use an Integrated Pest Management (IPM) approach to minimize the use of pesticides for landscape maintenance. Pesticides, herbicides, fungicides, and fertilizers can be greatly reduced or possibly even avoided by creating environments that discourage pests, monitoring pest populations, and taking early action to prevent widespread infestations. The goal is to keep pests at a level that is manageable and acceptable for the intended landscape use.
- ◆ Use native plants to minimize the need for chemicals.
- ◆ Use manual removal of weedy plants where possible.
- ◆ If pesticides, herbicides, fungicides, and fertilizers are necessary:
  - ▶ Use only licensed personnel to apply pesticides and herbicides.

- ▶ Follow manufacturer's application instructions.
- ▶ Do not apply chemicals to impervious surfaces or during rainy weather.
- ▶ Clean up any improperly applied or spilled chemicals from impervious surfaces. Do not allow them to wash into the storm system.
- ▶ Use the proper application device to prevent over or improper application of fertilizers. Avoid applying onto nearby impervious areas and attempting to clean up the over application. This leads to deposits of fertilizers in areas where it can often be washed into the stormwater system.
- ▶ Select slow release fertilizers.
- ▶ Conduct periodic soil tests to determine which fertilizer product is most effective.
- ▶ Develop and follow spill response procedures for spill cleanups.

### *Additional Resources*

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[\*Willamette Valley Native Plants Guide\*](#), City of Portland, Bureau of Environmental Services

[\*Integrated Pest Management \(IPM\) Principles\*](#), U.S. Environmental Protection Agency

[\*Industrial Stormwater Best Management Practices\*](#), Oregon Department of Environmental Quality

[\*Pacific Northwest Disease, Weed, and Insect Management Handbooks\*](#), Oregon State University