

Landscaping, Gardening and Pest Control

Best Management Practices For: residential homeowners, small businesses, landscapers, teenagers taking care of lawns as a summer job, golf courses, etc.

Landscaping and garden maintenance activities can be major contributors to pollution. Soils, yard wastes, over watering and garden chemicals become part of the urban runoff mix that winds its way through streets, gutters and storm drains before entering surface waters.

Poorly functioning sprinklers and over watering, for example, waste water and increase the number of pollutants flowing into storm drains.

Fertilizers, pesticides and herbicides are washed off lawns and landscaped areas. These chemicals not only kill garden invaders, they also harm useful insects and contaminate ground and surface water.

Leaves, grass clippings and tree trimmings that are swept or blown into the street and gutter are also wash pollutants. These wastes clog catch basins, increasing the risk of flooding on your street, and carry garden chemicals into surface waters. As they decompose, they also absorb oxygen aquatic life need to survive.

Commercial Fertilizer and Pesticide Application (Lawn Services, Commercial Landscapers, Golf Courses, Local Governments and Others)

Prevent overspray of fertilizers and pesticides onto sidewalks and streets. If overspray occurs, vacuum oversprayed fertilizers and pesticides to prevent runoff into the storm drain during storm events. Do not apply fertilizer just before or during rainstorms. Rinse empty pesticide containers and treat the rinse water as you would the product. Dispose of empty containers in the trash. Dumping toxics into the street, gutter or storm drain is illegal! Non-recyclable materials must be taken to an appropriate landfill or disposed of as hazardous waste. Do not apply fertilizers or pesticides in streamside buffers of water bodies. Follow USDA guidelines and labels requirements when applying, storing and disposing of fertilizers and pesticides.

Garden Location and Site Design

Protect stockpiles and materials from wind and rain by storing them under tarps or secured plastic sheeting. Schedule grading and excavation projects for dry weather. Prevent erosion by planting fast-growing annual and perennial grasses. These will shield and bind the soil.

Garden & Lawn Maintenance

In communities with curbside yard waste recycling, place clippings and pruning waste in approved containers for pickup. Or, take clippings to a landfill that composts yard waste. Do not blow or rake leaves into the street, gutter or storm drains. Use organic or non-toxic fertilizers. Do not over-fertilize and do not fertilize near streets, storm drains or other water bodies. Store pesticides, fertilizers, and other chemicals in a covered area to prevent runoff.

Pesticide Use

The "chemicals-only" approach to pest control is only a temporary fix. A more common-sense approach is needed for a long-term solution: Integrated Pest Management.

Plan your "IPM" strategy in this order:

1. Physical Controls

- Caulking holes or hand-picking
- Barriers or Traps

2. Biological Controls

- Predatory insects (e.g. Green lacewings eat aphids)
- Bacterial insecticides (e.g. *Bacillus thuringiensis* kills caterpillars)

3. Chemical Controls - Your Last Resort

Use these least-toxic products:

- Dehydrating dusts (e.g. silica gel)
- Insecticidal soaps
- Boric acid powder
- Horticultural oils
- Pyrethrin-based insecticides

Safe Substitutes for Pest Control

Garden Aphids and Mites - Mix 1 tablespoon of liquid soap and 1 cup of vegetable oil. Add 1 teaspoon of this mixture to a cup of water and spray. (Oil may harm vegetable plants in the cabbage family.)

Caterpillars - When caterpillars are eating, apply products containing *Bacillus thuringiensis* to leaves.

Ants - Place boric acid powder or hydramethylnon baits in problem areas, cracks and insect walkways. It is a mild poison, so be sure it is inaccessible to children and pets.

Roaches - Apply boric acid powder to cracks and entry points (see ants above). Place bay leaves on pantry shelves.

If You Must Use Pesticides

Use a pesticide that is specifically designed to control your pest. The insect should be listed on the label. Approximately 90% of the insects on your lawn and garden are not harmful. Read labels! Use only as directed. In their zeal to control the problem, many gardeners use pesticides at over 20 times the rate that farmers do.

Pesticide Disposal

Household toxics—such as pesticides, cleansers and motor oil—can pollute surface and ground waters if disposed of in storm drains or gutters. Rinse empty pesticide containers and use rinse water as you would the product. Dispose of empty rinsed containers in the trash.

