EPA

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
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MRI

Midwest Research Institute

FLORIDA STORMWATER EDUCATION

FLORIDA COMMUNITY COLLEGE

CONSORTIUM for POLLUTION PREVENTION EDUCATION

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Stormwater Best Management Practices (BMP's)

Landscaping Gardening & Pest Control

Safe Environmental Habits and Procedures for:

Gardeners

Homeowners

Landscapers

Pollution Prevention It's Up to Us

The storm drainage systems of Florida lead to our local water bodies, and eventually to the Gulf of Mexico or the Atlantic Ocean. Storm drains were designed to prevent flooding by carrying excess rainwater away from streets out to Florida waterways. Because the system contains no filters, it now serves the *unintended* function of carrying stormwater runoff, also referred to as ***Pointless Personal Pollution***, straight to these waterways.

When it rains, water mixes with pollutants creating ***Pointless Personal Pollution***. The pollutants include oil and other automotive fluids, paint and construction debris, yard and pet wastes, pesticides and litter.

Pointless Personal Pollution flows to our waterways through the storm drain system. Each day, polluted runoff enters the water untreated, leaving toxic chemicals and trash in our water.

Pointless Personal Pollution contaminates the waterways, harms aquatic life and increases the risk of inland flooding by clogging gutters and catch basins.

This pamphlet tells you how to prevent ***Pointless Personal Pollution*** through Best Management Practices (BMPs). Using these BMPs will ensure cleaner waterways.

Environmental Awareness Saves Our Planet!

This is one in a series of pamphlets describing storm drain protection measures. Other pamphlets include:

Roadwork & Paving

Heavy Equipment

Concrete & Mortar Application

General Construction & Site Supervision

Food Service Industry

Automotive Maintenance & Car Care

Painting

Landscaping & Garden Maintenance Problems

Landscaping and garden maintenance activities can be major contributors to water pollution. Soils, yard wastes, over watering and garden chemicals become part of the pollution that winds its way through streets, gutters and storm drains before entering Florida's waterways.

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, poison fish and contaminate ground and surface water.

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

Solutions

Best Management Practices that include the proper handling, storage and disposal of materials can prevent pollutants from entering waterways through the storm drain system.

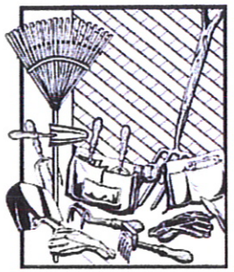
Solutions for Landscaping & Garden Maintenance

General Landscaping Tips

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

Do not over water. Conserve water by using irrigation practices such as drip irrigation, soaker hoses or micro-spray systems.

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 ditches, streams or other water bodies.

Store pesticides, fertilizers and other chemicals in a covered area to prevent runoff.

Pesticide Alternatives

The "chemicals-only" approach to pest control is only a temporary fix. A more common-sense approach is needed for a long-term solution. It is called ***Integrated Pest Management***. Plan your **IPM** strategy in this order:

A) Physical Controls

- Caulking holes
- Barriers
- Hand picking
- Traps

B) Biological Controls

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

C) Chemical Controls—*Your Last Resort*

Use these least-toxic products:

- Dehydrating dusts (ie. Silica gel)
- Insecticide soaps
- Boric acid powder
- Horticultural oils
- Pyrethrum-based insecticides

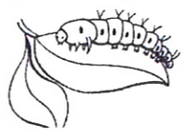
Safe Substitutes for Pest Control

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 waterways and poison groundwater 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.

Contacts

To report a spill, learn about waste disposal or report illegal dumping please contact your local public works department.

For more information contact your local Water Management District.

Northwest Florida	**850-539-5999**
St. Johns River	**386-329-4500**
Southwest Florida	**352-796-7211**
South Florida	**561-686-8800**
Suwannee River	**386-362-1001**