What you can do to protect our drinking water and the health of your family and neighbors:

- Stop using all chemical pesticides (insecticides, herbicides and fungicides) on your lawn.
- Learn more about sound cultural practices, including less toxic and nontoxic lawn care and pest control.
- Read the label of all lawn care products.
- Avoid fertilizers containing insecticides or herbicides.

If you have a lawn care service or a pest control service:

- Find out what chemicals they apply to your lawn, fruit trees, ornamentals and foundation.
- Get the label and technical data for all products they use on your lawn.
- Insist on nontoxic lawn care and pest control – only the biorationals (horticultural oils, insecticidal soaps, and *Bacilus Thuringiensis* products).
- If your present service can't provide nontoxic lawn care, switch to one that can.
- Remember that **none** of the EPA-registered chemical pesticides are "safe."

All pesticide products contain *active* ingredients that are biocides designed to kill. They also contain ***"inert"*** ingredients that may be toxic. Some ***"inerts"*** themselves are the active ingredient in other pesticide products. Many other *"inerts"* are hazardous air and water pollutants, some assessed as "extremely hazardous." Other *"inerts"* are Toxic Release Inventory chemicals, known or suspected carcinogens, or regarded as occupational hazards. **Toxic chemicals are used as inert ingredients in pesticide products. Some *"inerts"* may be more toxic than the active ingredient in the product.**

Active and inert ingredients in lawn care pesticides (insecticides, herbicides and fungicides) contaminate drinking water.

If you live in the watershed of a reservoir that provides water for a community, you should not use any chemical pesticides or fertilizers outdoors. Not only do the pesticides pollute the reservoir, but also the runoff from fertilizer puts excess nitrogen in the reservoir water, promoting algae growth. Herbicides and other toxic chemicals have to be added to the reservoir to kill the algae.

FACT

Facts about Alternatives to Chemical Trespassing, Inc.

PO Box 5922, Sarasota FL 34277-5922

a 501(c)(3) not-for-profit organization

working to stop urban pesticide pollution

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DRINKING WATER CONTAMINATION FROM LAWN CARE PESTICIDES

FACT

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to Chemical Trespassing, Inc.
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The National Water Quality Assessment Program conducted by the U.S. Govt, Dept of the Interior, U.S. Geological Survey in Circ. 1151 covering the Georgia and Florida coastal plain, found:

- Pesticides in ground water and streams are a major issue.
- Insecticides were detected more frequently in a stream draining an urban basin than a stream draining an agricultural area.
- Certain insecticides and herbicides in particular were detected most often in the urban samples:

atrazine in 100% of the urban samples
vs 63% of the agricultural samples
simizine 95% vs 4%
diazinon >95% vs not detected
carbaryl (Sevin®) >50% vs 10%
chlorpyrifos (Dursban®) <40% vs 4%
malathion 25% vs 8%

NOTE: No testing was done for many common pesticides, such as **glyphosate (Roundup®)**.

- More pesticides were detected in **surface water** than in ground water.
- The median concentration of all pesticides was higher for **ground water** than surface water.
- The Upper Floridan aquifer, the primary drinking water aquifer, is poorly confined and vulnerable to contamination from the surface.

Pesticides applied to lawns are a major source of environmental pollution in Florida, particularly to surface and ground water.

Lawn care pesticides contaminate drinking water via runoff and leaching.

Health risks are understated or not known because drinking water standards were set by the USEPA based on one chemical at a time in uncontaminated conditions. The USEPA has **not** looked at combinations of chemicals, nor considered their cumulative, additive or synergistic effects. The USEPA has **not** even considered combinations of closely related chemicals, such as atrazine and simizine, in setting the standards.

Protect our drinking water and the health of your family and neighbors.
Stop using pesticides
(all insecticides, herbicides and fungicides) on your lawn.

For health hazard assessment, lawn care pesticides (insecticides, herbicides and fungicides) are tested generally in high doses for short term acute toxicity, carcinogenic effects, reproductive effects and teratogenic effects.

Extensive testing is done to determine the *"LD-50"* which is the lethal dose needed to kill 50% of the animals in the laboratory such as rabbits, dogs, guinea pigs, mice, rats, chickens, etc. The LD-50 testing is barbaric, out-moded, and does not give an accurate and complete picture of the health effects of pesticides.

The EPA is first now starting the process to consider the ***"endocrine-disrupting"*** effects of pesticides. The endocrine system involves the complex glandular organs that produce the hormones that are biochemical messengers to regulate vital bodily functions - including reproductive, metabolic and thyroid systems and sexual development.

Pesticides can mimic or obstruct hormone function in humans and wildlife, and cause disorders such as reproductive and developmental abnormalities, immune dysfunction, cognitive and behavioral problems, and cancer. Pesticides can be hormone-like or hormone antagonistic, exhibiting estrogenic, antiandrogenic (obstructing androgens), or thyroid-disrupting effects. Pesticides can disrupt the endocrine system or fool it into accepting erroneous instructions that distort normal development.

Hormone disruption occurs from pesticides in very small exposures, but not large doses.