

wellcare[®] information for you about Proper Use and Disposal of Pesticides and Fertilizers

Pests such as weeds, insects, molds and fungi can damage your lawn and garden. Pesticides can help treat certain types of pests, but are not always the best or only solution. If pesticides are used, proper use and disposal is necessary to prevent harm to people, pets and plants, and to protect the air, soil and water from pollution.

Likewise, fertilizers can be beneficial to your lawn and garden. However, many fertilizers contain nitrogen, which can convert to harmful nitrate. Careful use of fertilizers can help reduce the chance that nitrate will leach into your groundwater.

This fact sheet contains general information on the proper use and disposal of pesticides and fertilizers. Your state may also have laws related to the use and disposal of pesticides and fertilizers. Check with your state fertilizer and pesticide management agency, or call the National Pesticide Information Center at 1-800-858-7378.

Can Pesticides and Fertilizers get into my well?

Pesticides and fertilizers can reach aquifers through the soil by way of rain or snow recharge. In addition, if pesticides or fertilizers are spilled or misused near a well, they can reach your drinking water. Some sources say spills within 25-50 feet of wells have a greater risk for contamination; others say pesticides and fertilizers should not be handled or stored within 100 feet of a well.

Several factors determine whether a pesticide or fertilizer will reach groundwater. These include:

- The properties of the pesticide or fertilizer, such as how quickly it breaks down and its solubility in water;
- The properties of the soil. Sandy soil or soil that is low in organic matter has a higher potential for groundwater contamination.
- The conditions of the site, such as its proximity to groundwater aquifers. Wet climates and areas with extensive irrigation also have a higher potential for contamination in groundwater.
- Management practices such as timing of application in relation to pest problems, crop growth, rainfall and irrigation.

For information on the health effects of pesticides, as well as information on testing and treatment, refer to the WSC wellcare[®] information sheet on "Pesticides."

Preventing Contamination in your Well

You can take steps to prevent the potential for pesticide contamination of your well. First, consider whether pesticide is the best method for treating your pest problem. Alternatives such as baits and traps are safer than pesticides.

Non-chemical pest control methods include hand picking pests from leaves. Prevention techniques include keeping your grass height no shorter than 2.5 inches to discourage pests and shade weeds, and rotating plant position periodically to minimize the spread of disease. Keep in mind that some insects, such as praying mantises and ladybugs, are beneficial to plants, by helping to kill more harmful insects and organisms.

Using, Storing and Disposing of Pesticides

If pesticides are used, the following precautions should be taken. Many of these tips will also apply to fertilizer use.

Using Pesticides:

<i>Do:</i>	<i>DO NOT:</i>
Choose the right type of pesticide for your problem. Insecticides treat insects, herbicides control vegetation, and fungicides control molds and fungi. Ready to use pesticides are preferred to those which require mixing or measuring because they reduce the chance of spills that may occur during mixing.	Aerosols are not a good option because they disperse chemicals, making it difficult to apply them only to the affected area.
Calculate the amount of pesticide needed for your problem. If possible, spot treat. Remember: more is not better. Buying and mixing only the amount needed for the application will prevent you from having to worry about storing or disposing of extra pesticide.	Never spray pesticides in windy conditions.
Read the label carefully. Follow the manufacturer's recommendations for applying, storing, and disposing of the product, as well as any precautions such as wearing goggles or gloves.	Never leave a pesticide unattended, and never use pesticides around other people, especially children and pets.
Clean up any spills immediately.	Do not eat, drink, or smoke while handling pesticides.

Storing Pesticides:

<i>Do store pesticides:</i>	<i>DO NOT store pesticides:</i>
In their original container with labels in tact.	In application equipment.
Tightly covered.	In food or beverage containers.
Out of reach of children and pets, preferably in a locked cabinet.	Near food, animal feed, seed, or medical supplies.
According to temperature and humidity specifications given on the label.	Near heat sources or flammable materials.
Along with any tools that were used for mixing or applying pesticides. Mark these tools clearly, so that they are not used for any other purpose.	Where flooding is possible, or where they might spill or leak into wells or drains.

Disposing of Pesticides:

<i>Do:</i>	<i>DO NOT:</i>
Follow instructions on the label, and use the entire product if possible. Empty containers are safer to clean and dispose of properly.	Pour pesticides down a drain or on the ground.
Rinse the container three times at least 25 feet away from your well.	Reuse pesticide containers.
If the container is made of metal or plastic, puncture it to ensure it is not reused. Wrap the container and dispose of it in the trash.	Puncture a pressurized container such as an aerosol can, as puncturing could cause the can to explode.
Bring unwanted pesticides to your local household hazardous waste collection program. To find a site near you, you may visit www.1800CLEANUP.org , or contact your local solid waste management authority, county agricultural commissioner, or environmental health department.	Put pesticides in food or beverage containers.

Should I test my water for Pesticides and Fertilizers?

If you believe your water may be contaminated with pesticides or a spill has occurred near your well, you may wish to have your water tested by a state certified laboratory. Your county health department or state environmental department can tell you if pesticides have been found in wells in your area. Your state pesticide program can help you determine whether you should test your water and what tests are needed. They can also direct you to a laboratory for testing, and help you to interpret test results. For a list of state programs, go to www.epa.gov/oppfead1/safety/applicators/statepro.htm

See the WSC wellcare® information sheet on “Nitrate and Nitrite” for more information on testing and treatment for nitrate-containing fertilizers.

For more information on Proper Use and Disposal of Pesticides and Fertilizers

National Pesticide Information Center. 1-800-858-7378 or npic.orst.edu

U.S. Environmental Protection Agency. (September 1995). Citizen’s Guide to Pesticides and Pesticide Safety. Retrieved March 22, 2007 from www.epa.gov/docs/OPPTpubs/Cit_Guide/citguide.pdf

U.S. Environmental Protection Agency Region 7. (2006). Pesticides in Your Garden. Retrieved January 30, 2007 from www.epa.gov/region7/pesticides/pest_garden_brochure.pdf

For more information on your drinking water

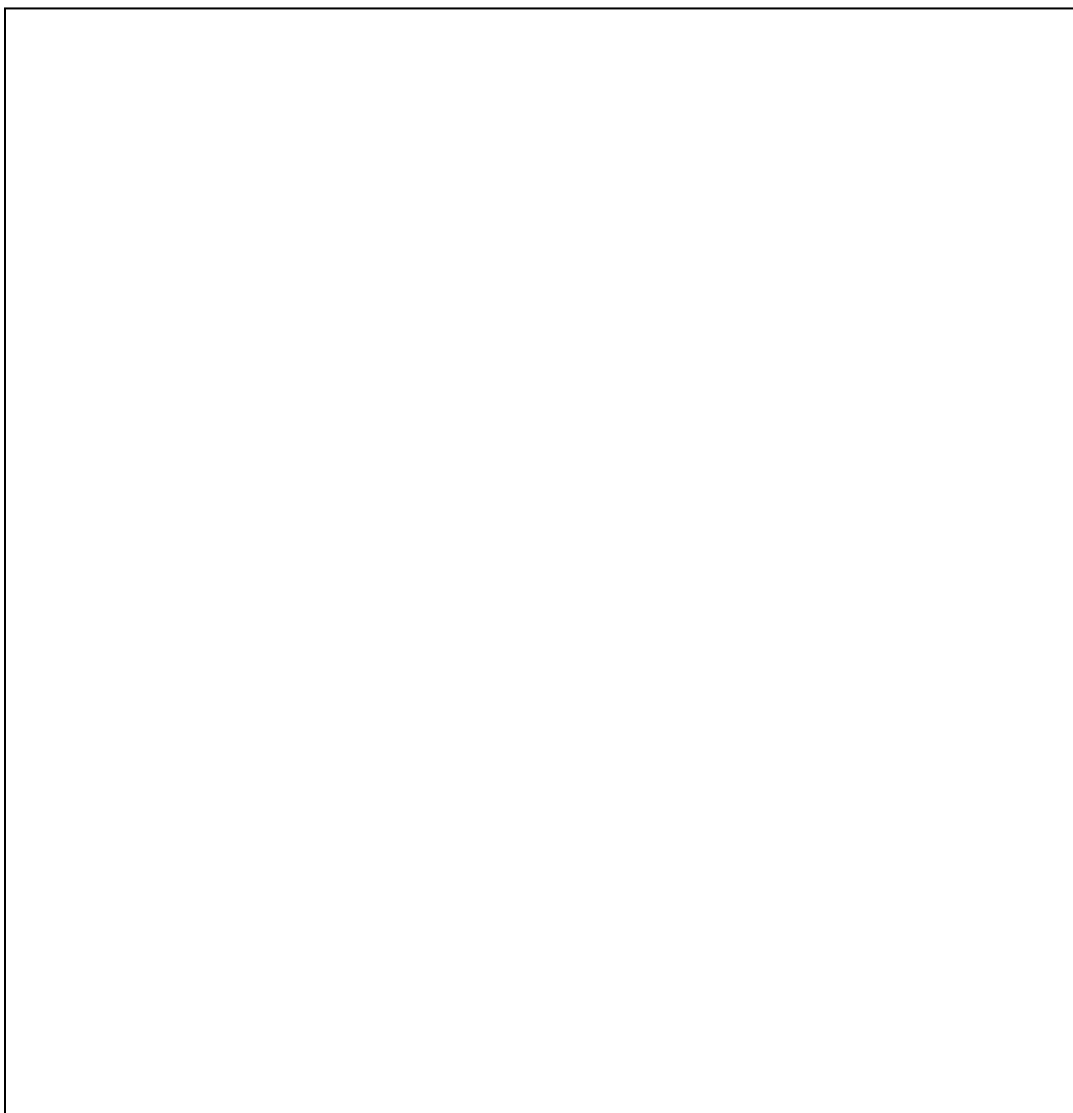
The following websites provide up-to-date information on efforts to protect drinking water supplies and steps you can take as a private well owner. In addition, you may contact the wellcare® hotline at 1-888-395-1033.

Underwriters Laboratories Inc. Drink Well™ Well Water Testing
U.S. Environmental Protection Agency
Water Quality Association

www.uldrinkwell.com
www.epa.gov
www.wqa.org

For more information about wells and other wellcare® publications

wellcare® is a program of the **Water Systems Council (WSC)**. WSC is a national nonprofit organization dedicated to promoting the wider use of wells as modern and affordable safe drinking water systems and to protecting ground water resources nationwide. This publication is one in a series of wellcare® information sheets. There were more than 60 available at the time this document was published. They can be downloaded FREE from the WSC website at www.watersystemscouncil.org. Well owners and others with questions about wells or ground water can also contact the wellcare® hotline at **888-395-1033** or visit www.wellcarehotline.org



This publication was developed in part under Assistance Agreement No. EM-83331201-0 awarded by the U.S. Environmental Protection Agency. It has not been formally reviewed by EPA. The views expressed in this document are solely those of WSC. EPA does not endorse any products or commercial services mentioned in this publication.