How to keep pesticides out of my well water?

Barry had a problem with moss growing in his lawn and decided to use a pesticide to get rid of it. Before he began Barry read the label and noticed a warning about applying the product directly to water or where runoff was likely to occur. Barry became concerned because his drinking water comes from a well on his property not far from his lawn. Barry wondered if the product could get into the well water. Barry noticed the telephone number for the National Pesticide Information Center on the label and decided to give them a call for more information.

Click here to find out what Barry learned about pesticides, wells, and groundwater.
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Barry did the right thing by reading the pesticide label before he used it! Barry learned that pesticide active ingredients have specific properties that determine a pesticide’s potential to affect groundwater. For example, when a pesticide can easily dissolve in water and doesn't bind to soil very well, it is more likely to reach groundwater. Sandy soils and lots of rain can increase the risk of groundwater contamination, as well.

The Pesticide Specialist told Barry that the U.S. EPA evaluates each pesticide for its potential risk to groundwater. When they determine that a pesticide can be risky for ground or surface water, they add statements to the product label. The Pesticide Specialist helped Barry find the “Groundwater Advisory” statement under the “ENVIRONMENTAL HAZARDS” section on the product label. It said:

“This chemical has properties and characteristics associated with chemicals detected in groundwater. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow”.

Barry told the Pesticide Specialist that the soil on his property was sandy loam, mostly, and the water table was fairly deep, over 30 feet from the surface.

The Pesticide Specialist discussed other considerations that should be taken into account to prevent contaminated surface runoff from entering the well, including the construction, lining, and type of well. Also, consider the location of the well head in relation to the application site, the slope of the immediate area (Is it tilted towards or away from the well head?), and the cover of the land (grass, bare rock, or soil). Plants can reduce the risk because they can slow down the water moving across the surface. Barry told the Pesticide Specialist that his property was very flat, covered with plants, and that his well was capped.

The Pesticide Specialist told Barry that most states have information on drinking water wells and groundwater for private wells owners, and some states offer free well testing. Barry decided he would follow up with his local well water resources for more information. Finally, the Pesticide Specialist reminded Barry of the importance of reading and following the label directions for any pesticide application.