

**PROTECTING
YOUR
GROUNDWATER
THROUGH
FARMSTEAD
ASSESSMENT**

AE-1076

Assessing Your Hazardous Waste Management Practices

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Many of the wastes generated on the farm are hazardous and can contaminate groundwater if not disposed of properly. There are thousands of farmstead and household products that contain toxic chemicals.

How to Determine If a Product is Hazardous

Essentially, a product is considered to be hazardous if it is defined as toxic, flammable, corrosive, and/or irritant. Toxic means the product may cause injury or death upon ingestion, absorption, or inhalation. Flammable means the product can be ignited under almost all temperature conditions. Corrosive means the product, or its vapors, can cause deterioration or irreversible alteration in body tissues at the site of contact and deteriorate or wear away at the surface of a material. Irritant means that the product can cause soreness or inflammation of the skin, eyes, mucous membranes, or respiratory system. Products that have these properties include household chemicals such as those

used for cleaning and personal care, automotive products, pesticides, fertilizers, and their containers. If you are not sure whether a product is hazardous, check the product label. If it says CAUTION and has a warning about being toxic, flammable, corrosive or irritant, or causing health threatening conditions, the product is hazardous.

What to Consider Before Buying a Product

One way to reduce the risk of groundwater contamination is to reduce the amount of hazardous wastes generated on your farmstead. This can be done by carefully considering the answers to these questions before you buy.

- Do you really need the product?
- Is there something similar that you could use that is less hazardous?
- Have you considered how much of the product you need?
- Have you checked the product label to determine if the product is hazardous?



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- Do you know how to properly dispose of product containers or the product itself if there is some left over?
- If some product is left over, can you give the unused amount to someone else?
- Is there a business or community collection facility that will accept the unused portion of the product for disposal or use by someone else?

You should know that in some cases there is not an acceptable way of disposing of some products on the farmstead. When this is the case, it is recommended that these products be stored in a safe place until a collection day for hazardous wastes is organized in your area.

Storing hazardous wastes safely requires some planning. You should make sure of the following:

- Product labels are attached and readable.
- Product containers are in good condition.
- The area where you are going to store the products has an impermeable surface.
- You can monitor the area for leaks or spills.
- Products are not in an area open to activities that could damage containers or result in chemical spills.
- The area is not accessible to children.
- Products are in an area that is locked to discourage theft and vandalism.

This circular contains a brief discussion of each question on the Farmstead Assessment checklist, and a section discussing what you can do and who to call if you answer "Yes" to any of the questions.



1 Do you dispose of hazardous household chemicals such as furniture polish, paints, stains, and drain cleaners or their containers on your farmstead?

Household chemicals such as furniture polish, paints, stains, and drain cleaners can pose serious problems to your drinking water quality.

Many farms have trash pits located on the premises. Continual use of these pits over several years may lead to buildup of hazardous chemicals in a relatively small area. The potential for measurable amounts of these chemicals to move to the groundwater increases significantly when they are concentrated in this way.

2 Do you dispose of waste oil and grease, used antifreeze, or lead acid batteries on your farmstead?

Effective January 1, 1992, North Dakota law states that waste oil and grease, lead-acid batteries, and major appliances may not be included in municipal waste or discarded or disposed of in landfills.

One quart of used motor oil can make 250,000 gallons of water undrinkable. According to some estimates, the amount of oil that is improperly disposed of into household refuse, or dumped on the ground, or into the sewer, in the United States, is approximately 57 times the amount of oil that was spilled by the Exxon Valdez in Alaska.

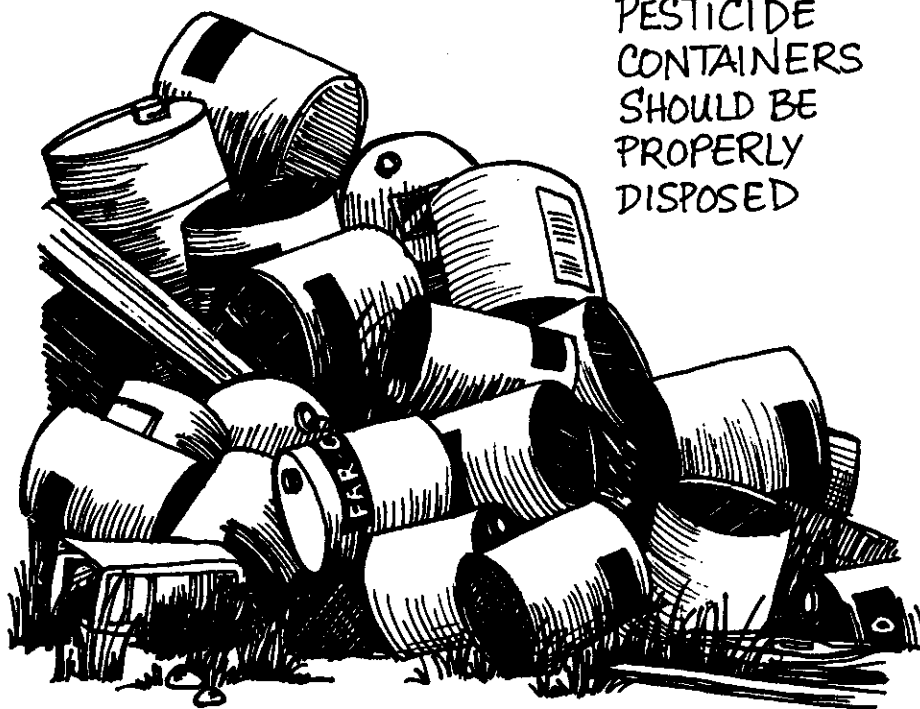
Lead-acid batteries can contain up to 18 pounds of lead and one gallon of lead-contaminated sulfuric acid.

Do you dispose of unwanted or banned pesticides or pesticide containers on your farmstead?

Pesticides and pesticide containers, including those used for indoor plants and yard care, can lead to contamination of drinking water if not properly disposed.

All pesticides and their containers should be handled according to the label provided to prevent health and environmental problems. Particular attention should be used when dealing with pesticides classified as "restricted use".

Old, unused and banned pesticides and their containers should not be disposed on the farm. They should be stored in a safe place until a collection site is organized for proper disposal.



PESTICIDE
CONTAINERS
SHOULD BE
PROPERLY
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ASSESSING HAZARDOUS WASTE MANAGEMENT PRACTICES

If you answered "Yes" to the following questions.

What you should do	Who to call	Other references
Question 1. Quit dumping hazardous household chemicals into open trash pits and have the chemicals disposed of properly.	Local landfill to see if they will accept your waste products or the product company for a specific product concern.	Solid Waste Management and Land Protection Rules. North Dakota State Department of Health. Art. 33-20.
Question 2. Stop disposing these products on your farm.	Call your local county Extension office or local landfill for information about proper disposal.	Solid and Hazardous Waste Management Plan. Available at Chester Fritz Library, University of North Dakota. (701) 777-4629.
Question 3. Inventory all pesticides and containers on your farmstead.	North Dakota State Department of Health - Solid Waste Program, (701) 328-5166 about waste pesticide collection sites. Local county Extension office.	Storage and Disposal of Pesticides and Containers on the Farm. NDSU Extension Circular AE-897.



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