

From the Grass to the Tap

It's important to make sure you take care of your lawn with good lawn care practices to keep it full and healthy. Some people may choose to use fertilizers to help their lawn. However if fertilizers are used improperly they can be expensive and harmful to pets, families, and drinking water sources.

How Fertilizer Affects Water Sources

Whether you have a big or small yard, if you live near or far away from a **waterway** like a lake, river, or stream all the water that rains on your lawn eventually makes its way into a surface or ground water source. This pathway is an example of **nonpoint source pollution**.

Water Movement

Water from precipitation and irrigation moves from your yard in two ways:

- **Run-off** – water running over the ground surface into storm water drains, ditches, and waterways
- **Infiltration** – water moving down through the soil into ground water. **Ground water** is the water that fills the empty spaces between soil and rock below the ground surface and provides water for wells.

Both run-off and infiltration connect the water on your lawn with the water sources that provide drinking water to you and your community, such as surface water treatment systems and both private and public water wells.

Mobilization of Nutrients and Chemicals

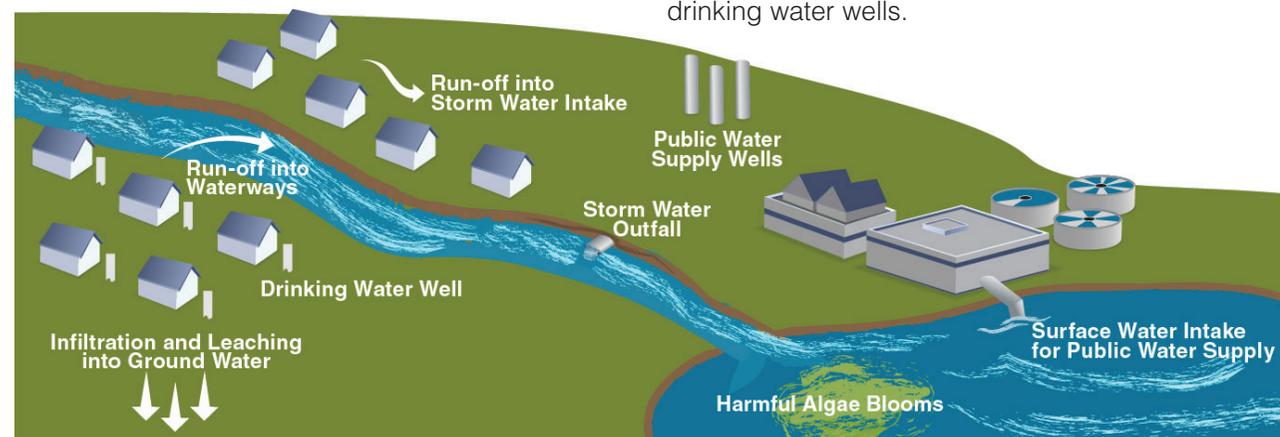
The water that flows off your yard can carry the chemicals you've applied. If not applied correctly, chemicals and fertilizers can be washed away in run-off or **leach** (move downward) during infiltration. Nutrients and chemicals may be lost easily if the application was during wet weather, or if too much was applied. This loss can happen because nutrients haven't reached plant roots to be absorbed.

Harmful Algal Blooms

When nutrients from fertilizer make it to waterways they can cause damage through increased algae growth in warmer months. This growth can result in large **algal blooms** that decrease oxygen and make the water toxic for fish, other aquatic life, and drinking water. Algae can also be an issue for surface water supplies by making drinking water harder to treat.

Ground Water Contamination

Excess fertilizers and pesticides that are leached during infiltration can also directly contaminate the ground water that is used for your or your town's drinking water wells.



Resources

- **U.S. EPA Healthy Lawn, Healthy Environment**
www.epa.gov/sites/production/files/2014-04/documents/healthy_lawn_healthy_environment.pdf
- **Indiana Department of Environmental Management**
www.idem.IN.gov
- **Indiana Soil and Water Conservation Districts**
www.IN.gov/isda/2370.htm
- **Purdue Extension**
www.extension.purdue.edu or 888-EXT-INFO (1-888-398-4636)
- **Purdue University Turfgrass Science**
www.turf.purdue.edu

For more information, call
(800) 451-6027 or (317) 234-7430
Please ask for the Drinking Water Branch.



Indiana Department of Environmental Management

100 N. Senate Ave.
Indianapolis, IN 46204-2251
www.idem.IN.gov



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From the grass to the tap.

INDIANA DEPARTMENT OF
ENVIRONMENTAL MANAGEMENT

How to Reduce Lawn Care Costs and Make Your Yard Safer

Reduce or Change Fertilizer

Most established lawns need little to no fertilizer because they have healthy roots and the soil has built up a reserve of the nutrients it needs.

Test your soil

Contact your County Extension Office for a soil test to find out:

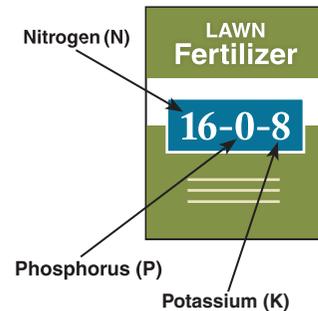
- What type of soil you have
- If your lawn needs any fertilizer
- What fertilizer works best for your nutrient needs and soil type
- The best way to apply fertilizer in your yard

Look for a slow release fertilizer

Slow-release or organic fertilizer contains less processed nutrients that are broken down and absorbed slowly over time by your lawn. In contrast, highly processed chemical fertilizers release quickly regardless of how much a plant can absorb and can be leached or washed away more readily.

Look for the zero

Use fertilizers with zero as the middle number. Indiana already has phosphorus-rich soil which does not need to be supplemented with phosphorus.



More fertilizer won't result in a better lawn

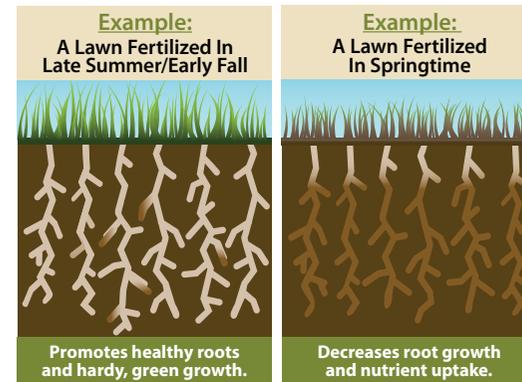
Follow the application instructions for best results. Excess fertilizer that your lawn doesn't need won't be absorbed and can contaminate drinking water sources through run-off and leaching.

Apply at the Right Time

Take advantage of seasonal variations in growth and weather conditions to improve your lawn and decrease fertilizer run-off to protect water resources and your drinking water.

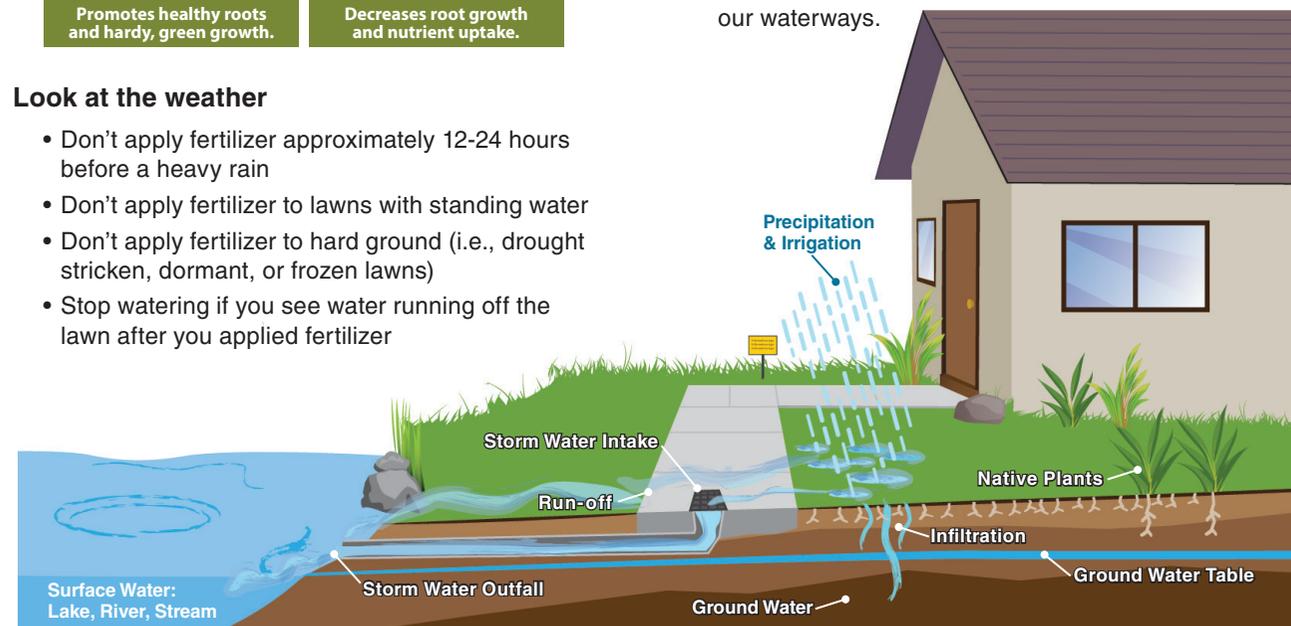
Apply in the fall

Apply fertilizer in the fall around September for a healthy spring lawn. Applying during the fall maximizes green color by promoting summer recovery and preparing the grass roots for winter. Strong roots result in healthy lawns.



Look at the weather

- Don't apply fertilizer approximately 12-24 hours before a heavy rain
- Don't apply fertilizer to lawns with standing water
- Don't apply fertilizer to hard ground (i.e., drought stricken, dormant, or frozen lawns)
- Stop watering if you see water running off the lawn after you applied fertilizer



Take Care of the Whole Lawn

Plant and maintain your lawn in a way that reduces the need for fertilizer and keeps your drinking water sources clean.

Plant smart

Contact your County Extension Office for more information about:

- Planting native and disease/drought-resistant grasses and plants — To save money on fertilizer and water
- Using plants that attract pollinators — To beautify your yard for your visual enjoyment

Mow high and leave the clippings

- Mow to 3 inches or higher — To help shade out weeds and grow healthy roots
- Leave the clippings on your lawn — To act as free fertilizer by recycling the valuable nutrients already on your lawn
- Keep fertilizer and clippings off sidewalks and driveways — To prevent run-off of nutrients and debris into our waterways.

Benefits to You and Your Community

By planning your lawn care to work with the natural landscape and reducing nutrient run-off and leaching into water sources, you will reap several benefits:

- Increased savings with fewer fertilizer applications
- Safer yards for pets and children to play on
- More visits from pollinators such as butterflies
- Clearer waterways and safer drinking water sources