



Fact Sheet

Fertilize Wise

February 2017

It may be hard to believe, but homeowners often use ten times more chemical fertilizers per acre than farmers use on farmland. Improperly applied, excess chemical fertilizers are washed off the land by stormwater runoff. This water flows into wells, lakes and streams, where it impacts water health.

How do fertilizers affect the environment?

Phosphorus and nitrogen are the two most common nutrients used in commercial fertilizers. When these nutrients build up in lakes, they cause explosive plant and algae growth in the water often resulting in unsightly or smelly accumulations on the water's surface. When these plants die the decomposing vegetation depletes the oxygen supply in the water, which often results in fish kills as oxygen levels fall below what is necessary to sustain life.

Excess nitrogen and phosphorus in the water can also result in Harmful Algal Blooms (also known as HABs) which can produce toxins hazardous to people and pets.

Nitrogen in drinking water can also have direct impacts on the health of humans and animals. For example, nitrate levels as low as 10 parts per million in drinking water have caused blue-baby syndrome (inability to breathe). Humans older than 6 months are not seriously affected, but cattle and sheep are susceptible.

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- If you decide you need to fertilize occasionally, have your soil tested first. A very quick and inexpensive soil test could save you from wasting cash on fertilizer, when you don't need to. Contact your local Cooperative Extension Agent to learn more.

- Make sure that at least half of the nitrogen in your fertilizer is slow-release or water insoluble. Slow-release fertilizers are less likely to leach out or wash away in runoff.
- Apply no more than 1 pound per 1,000 square feet of lawn and fertilize no more than once or possibly twice each year (April and August).
- Use a low spreader setting and water-in the fertilizer lightly.
- Never apply fertilizer before a storm. It will simply wash off your yard, instead of helping your plants grow.

More yard care tips

- Instead of buying chemical fertilizers consider using compost. Yard waste such as leaf and grass clippings contain high levels of nitrogen and phosphorus. But be aware! Yard waste washing into streams have similar effects on water health to chemical fertilizers.
- Water deeply. Make sure that you are not losing nutrients by washing away your topsoil and fertilizer applications.
- Use soaker hoses or drop irrigation on beds. The idea is to give water a chance to soak into the ground, rather than pooling and running off, taking your fertilizers with it.

Protect your stream

You can do a lot to combat problems with fertilizers in the streams, by preventing it from getting to the stream itself. By planting and/or maintaining a buffer strip of plants along your creek, you soak up runoff and filter out the fertilizers. In addition, the planted buffer strip helps prevent streamside erosion.