

# Penn State **Extension**

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## Don't Over Fertilize Your Lawn this Spring!

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As spring temperatures warm up, many of us begin to think about yard work and greening up that dormant winter lawn.

Before you venture out to the garden center to purchase bags of fertilizer and a spreader, consider the following.

Lawn fertilizer contains the nutrients nitrogen and phosphorus, which are major sources of pollution in streams, rivers, and the Chesapeake Bay. When too much fertilizer is applied to lawns, the nutrients can run off into local storm drains. Excess nutrients can also seep into groundwater, which eventually makes its way into streams and rivers.

The nutrients effect a two-stage cycle of destruction: They feed massive algae blooms that prevent sunlight from reaching underwater grass beds, killing them. Then the algae dies and is consumed by hungry bacteria that sucks oxygen from the water. This process creates vast “dead zones” that suffocate any creature unfortunate enough to enter.



Turfgrass is slowly becoming one of the largest land covers or crops in the United States, covering 45 million acres. We use 800 million gallons of gasoline, 100 million tons of fertilizer, 70 million pounds of pesticides each year to maintain those lawns.

So how can we maintain healthy lawns and healthy, clean streams? Here are a few tips to consider this spring.

- Before fertilizing your lawn, conduct a soil test. Penn State Extension offices in every county sell a simple soil test kit that will allow you send a small sample of soil to the laboratory which in-turn will send you results with written recommendations of how much fertilizer, if any, or lime that might be needed.
- Consider the soil pH. Your soil test will tell you the pH (a measure of soil acidity or alkalinity) and how much lime is needed to raise or adjust the pH. In many cases lawns in some areas of Pennsylvania are in need of lime because pH is between 6.2 and 6.5. It is best to lime lawns in the fall, but spring is fine too.

- If your soil test says there is plenty of phosphorus in the soil, then don't use a complete fertilizer such as 10-10-10 that contains all 3 major nutrients, nitrogen, phosphorus, and potassium. Use a fertilizer with nitrogen only, and follow the soil test recommendations.
- When applying lawn fertilizer, use slow-release or controlled-release fertilizer that will breakdown over time and be available for the plants throughout the growing season, versus a quick release nitrogen that tends to leach or volatilize quickly.
- It is best to apply smaller amounts of fertilizer several times throughout the growing season. Applying large amounts of fertilizer can leach from the soil, and push too much succulent growth that is prone to fungal diseases. Apply no more than 1 lb. of nitrogen fertilizer (slow or controlled-release) per 1000 square feet, per application.
- When spreading fertilizer, make sure your spreader is not broadcasting fertilizer granules onto walks and driveways where it will wash into storm drains. Sweep up fertilizer on paved areas and spread it on lawn areas.

For [more information about proper lawn care, visit the Turf Extension website](#) [<http://plantscience.psu.edu/research/centers/turf/extension>] or call your local Penn State Extension Office to inquire about soil testing.

## Contact Information



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