

Successful turf fertilization requires that you assess the turf's nutritional requirements, understand fertilizers, know how much to apply and when, and use proper application techniques.

Careless application techniques or excessive amounts of fertilizer applied at the wrong time of year can result in serious turf damage and contamination of water resources.

Phosphorus and nitrogen are two of the major nutrient sources contributing to surface water and groundwater pollution in New York, the USA and in the oceans.

Consider using ground covers instead of grass in difficult areas. Creeping thyme, white Dutch clover and similar plants are attractive and require very little care.

White Dutch clover seed used to be added to lawn grass seed as a means of fixing atmospheric nitrogen into the soil, thereby feeding the grass. It is soft to walk on, grows only about 4 inches high, and doesn't "dog spot". The deep roots hold soil in place, reducing the risk of erosion.



Ontario-Wayne Stormwater Coalition Members

Town of Victor
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[http/ www.owsc.org](http://www.owsc.org)

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Lawn Fertilizer: Look for the Zero



Ontario-Wayne
Stormwater Coalition

*Protecting Water
Preventing Pollution*

Water-Careful Lawn Care: Green Lawns and Clean Water

According to NASA satellite information, lawn grass is now the largest single crop in the USA. NYU confirms that it is the largest crop in New York state. Lawns consume more irrigation water than crop fields, a great deal of time and effort, and vast amounts of fertilizer and pesticide.

It is important that chemicals purchased for the lawn not end up in streams and lakes. Green grass is attractive; green, slimy water, is not. Fertilizer will grow both of these.

New York requires that lawn fertilizers have no phosphorous content except if used when grass is sprouting and becoming established or when lack of phosphorus is verified by a soil test. The goal is to reduce phosphorus carried in runoff to water resources.

Nitrogen

Nitrogen content in fertilizer is the first number on the bag. Nitrogen is essential for healthy lawns, but can also contaminate ground and surface waters through leaching and runoff.

Leaching occurs when irrigation or rainfall carries nitrogen downward through the soil. As nitrate moves below plant roots, it continues to move downward, eventually ending up in groundwater and surface water.

The greatest risk for leaching is in sandy soils during periods of wet weather or excessive irrigation, and following applications of quick-release nitrogen at high rates.

Excessive nitrate concentrations in drinking water are a health risk, especially for infants, pregnant and nursing mothers, and young children.

Leaching can be reduced by using slow-release nitrogen sources on high sand-content soils or by using low rate applications of quick-release nitrogen sources.

Nitrogen movement into water speeds degradation of surface waters by supporting algae and water weed growth.

Suggestions for Maximizing the Efficiency of Nitrogen Fertilizer

Soil test. Applications of phosphorus, potassium, and lime according to soil test recommendations allow more efficient use of nitrogen fertilizer.

Apply nitrogen in amounts needed by the species you are maintaining—more is not necessarily better.

Apply nitrogen fertilizer in multiple applications over the growing season to meet the needs of your turf at the appropriate time—usually mid to late spring, late summer, and late fall.

Leaving clippings on lawns can cut nitrogen fertilizer needs by up to one-third.

Don't overwater—too much water can leach nitrogen below root systems and into groundwater.

Use slow-release fertilizers when making infrequent, high-rate applications in areas where soils are prone to leaching.

Shut off your spreader when moving across driveways or maintenance roads. Sweep up granules from pavement. In small lawns enclosed by sidewalks and driveways, use a drop spreader or a liquid application for greater accuracy.

Do not apply nitrogen to dormant lawns in summer or on frozen surfaces in winter.

Water-in urea or ammonium fertilizers, when applications are made in warm weather.

Fill and empty fertilizer spreaders in an area where spills can be easily cleaned up. Use your spilled fertilizer—don't wash it into the street or storm sewers.

Use Phosphorus-Free Lawn Fertilizer It's the Law!

Most lawns in New York State do not need additional phosphorus for healthy growth. When you use fertilizer containing phosphorus for your lawn, the rain can wash it into streams, lakes and reservoirs. Fertilizer in water can create excess algae, plant growth and green scum that:

- Interfere with boating and swimming
- Harm fish populations
- Degrade drinking water quality

How do you know if you are using phosphorus-free fertilizer? **Look for the zero.**

Check the fertilizer bag for a set of three numbers; they represent the percentage of nitrogen, phosphorus and potassium. The number in the middle should be a "0."

Phosphorus runoff poses a threat to water quality. Therefore, under New York law (effective January 1, 2012), phosphorus-containing fertilizer may only be applied to lawns or non-agricultural turf when:

- A soil test indicates that additional phosphorus is needed for growth of a lawn or non-agricultural turf. or
- The fertilizer is used for newly established lawns or non-agricultural turf during the first growing season.

Visit <http://www.dec.ny.gov> for more information.
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

