Stormwater Pollution Education: Fertilizing the Lawn

When you fertilize the lawn, remember . . .

you're not just fertilizing the lawn.

It's hard to imagine that a green, flourishing lawn could pose a threat to the environment, but the fertilizers you apply to your lawn are potential pollutants! If applied improperly or in excess, fertilizer can be washed off your property and end up in lakes and streams. This causes algae to grow, which uses up oxygen that fish need to survive. So if you fertilize, please follow directions and use sparingly.

Clean water is important to all of us.

It's up to all of us to make it happen. In recent years, sources of water pollution like industrial wastes from factories have been greatly reduced. Now, more than 60 percent of water pollution comes from stormwater runoff, which picks up pollutants like leaking oil from cars, fertilizers from farms and gardens, and failing septic tanks. All these sources add up to a big pollution problem.

But each of us can do small things to help clean up our water - and that adds up to a pollution solution!

Why do we need clean water?

Having clean water is of primary importance for our health and economy. Clean water provides recreation, commercial opportunities, fish habitat, drinking water, and adds beauty to our landscape. All of us benefit from clean water-and all of us have a role in getting and keeping our lakes, rivers, streams, marine, and ground waters clean.

What's the problem with fertilizers?

Fertilizer is a "growing" problem for lakes, rivers, and streams, especially if it's not used carefully. If you use too much fertilizer or apply it at the wrong time, it can easily wash off your lawn or garden into storm drains and then flow into lakes or streams. Just like in your garden, fertilizer in lakes and streams makes plants grow. In water bodies, extra fertilizer can mean extra algae and aquatic plant growth. Too much algae causes water quality problems and makes boating, fishing, and swimming unpleasant. As algae decay, it uses up oxygen in the water that fish and other wildlife need.

Clean Water Tips: How can you fertilize and help keep our waters clean?

- Use fertilizer sparingly. Many plants don't need as much fertilizer or need it as often as you might think.
- Don't fertilize before a rain storm.
- Consider using organic fertilizers. They release nutrients more slowly.

Have your soil tested before applying fertilizers to your lawn and gardens.
A standard soil test costs $15. You may not need to add any fertilizer.
To order a soil test or for more information contact the
UMass Extension Soil Testing Lab at 413-545-2311
http://soiltest.umass.edu/ordering-information

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MassDEP

FACTSHEET

Massachusetts Plant Nutrient Regulations: Non-Agricultural Turf and Lawns

Why were plant nutrient regulations implemented?

In 2012, the Massachusetts Legislature passed *An Act Relative to the Regulation of Plant Nutrients* (Act).[i] The Act directed the Department of Agricultural Resources (MDAR) to develop regulations to ensure that plant nutrients are applied in an effective manner to provide sufficient nutrients for maintaining healthy agricultural and non-agricultural land (turf and lawns), while minimizing the impacts of the nutrients on surface and ground water resources to protect human health and the environment.

What do the regulations involve?

The Act and regulations[ii] establish standards for applications of plant nutrients, including limitations on phosphorus-containing fertilizer, to non-agricultural turf and lawns. The regulations also enhance the ability of municipalities to maximize the credits relative to storm water discharge or similar permits issued by the United States Environmental Protection Agency (EPA). The regulations also address plant nutrient applications to agricultural land, which are summarized in a separate factsheet. The regulations became effective on June 5, 2015.

Who will likely be impacted by these regulations?

In general, these regulations impact anyone who applies plant nutrients (including commercial fertilizer and various other plant nutrient materials) to both agricultural and non-agricultural land (lawns and turf). Record-keeping requirements for non-agricultural applications only apply to professional applicators.

What do these regulations require?

Homeowners and professionals are required to obey plant nutrient application restrictions and follow University of Massachusetts Amherst Extension Guidelines (UMass Guidelines) for nutrient management when applying plant nutrients on non-agricultural turf and lawns.[iii]

Specific restrictions and requirements for turf and lawns:

- Phosphorus-containing fertilizer may only be applied when a soil test indicates that it is needed or when a lawn is being established, patched or renovated.
- Do not apply plant nutrients to sidewalks or other impervious surfaces. Plant nutrients that land on these surfaces must be swept back onto the grass or cleaned up.
- No applications of plant nutrients shall be made:
  - between December 1 and March 1;
  - to frozen and/or snow covered soil;
  - to saturated soil, or soils that are frequently flooded;
  - within 20 feet of waterways if using a broadcast method, or 10 feet if using a more targeted application method, such as a drop spreader;

  - within a Zone I of a public water supply well or within 100 feet of surface waters that are used for public drinking water supply.

- Plant nutrient applied shall not exceed UMass Guidelines for plant nutrient application rates to turf.
- In determining the amounts of phosphorus and nitrogen that may be applied, the amount known to have been applied with organic plant nutrient sources (such as natural organic fertilizer, compost, and biosolids) should be accounted for.
- The amount of phosphorus applied with organic sources shall not exceed the maintenance phosphorus rates for turf as specified in the UMass Guidelines. Soil testing provides the most accurate method for determining the phosphorus requirements.
- Application of biosolids shall comply with the regulatory requirements for land application of such materials (330 CMR 32.00).
- Soil tests for nutrient analysis shall be obtained from the UMass Extension Soil Testing Lab or a laboratory using methods and procedures recommended by UMass. A soil test is valid for 3 years.
- Record keeping of plant nutrient applications to lawn and turf is required for professional applicators. Information to be recorded, when applicable, includes site location and size, soil test results, date of application, type and amount of plant nutrients applied.

Retailer Requirements

Retailers who sell phosphorus-containing fertilizer are required to:

- Display phosphorus-containing fertilizer products separate from non-phosphorus fertilizer products; and
- Post a sign displaying language informing the consumer about phosphorus-containing fertilizer restrictions for turf and lawns.[iv]

Enforcement

MDAR has the statutory enforcement authority and may impose an administrative penalty for violations of any provisions in these regulations.

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[i] An Act Relative to the Regulation of Plant Nutrients: https://malegislature.gov/Laws/SessionLaws/Acts/2012/Chapter262

[ii] 330 CMR 31.00 et seq.: http://www.mass.gov/eea/docs/agr/pesticides/docs/plant-nutrient-regulations.pdf

[iii] UMass Guidelines for Nutrient Management: http://ag.umass.edu/turf/publications-resources/nutrient-management-information

[iv] 330 31.08 requires the following language: "PHOSPHORUS RUNOFF POSES A THREAT TO WATER QUALITY. THEREFORE, UNDER MASSACHUSETTS LAW, PHOSPHORUS CONTAINING FERTILIZER MAY ONLY BE APPLIED TO LAWN OR NON-AGRICULTURAL TURF WHEN (i) a Soil Test indicates that additional phosphorus is needed for the growth of that Lawn or Non-agricultural Turf; or (ii) is used for newly established Lawn or Non-agricultural Turf during the first growing season."