

Phosphorus Regulation & Research in Massachusetts & Beyond



Northeast Residuals & Biosolids 2017

October 27, 2017

Ned Beecher, Executive Director

NEBRA

Tamworth, NH

ned.beecher@nebiosolids.org

Decades of efforts to control P (and N)

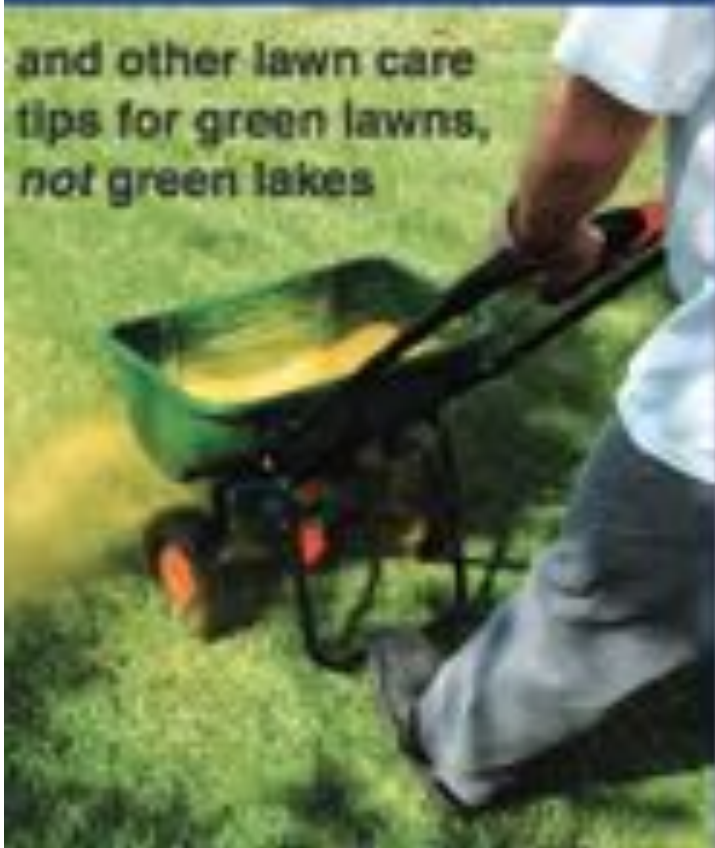
- Agricultural nutrient management planning
 - Focus on N (leaching/groundwater) & P (runoff, surface water)
 - NRCS Code 590 – January 2012

- Turf & lawn fertilizer regulations are more recent
 - Focused mostly on P
 - Key provision: soil test must show need before P is applied
 - ~15 in Mid-west & Northeast, also WA
 - Some exempt biosolids
 - NEIWPCC →
model state regulation



Don't "P" on Your Lawn!

and other lawn care tips for green lawns, not green lakes



MD's Lawn Fertilizer Law





**Why is Phosphorus bad
for our lakes?**

**DON'T "P"
IN THE
LAKE!**

**Our pristine lakes are at risk of
algae blooms and poor water
quality from recent overuse
of unnecessary fertilizers**

Common state regulation themes:

- Require soil testing & agronomic application rates (based on P if P is above optimum)
- Prohibit or restrict application to
 - impervious surfaces
 - frozen or snow-covered ground
 - during specified winter months (seasonal restrictions)
- restrictions on retail sales of P-containing fertilizers
- signage and/or labeling requirements

What changed our level of concern:

MDAR Plant Nutrient Management

- Chapter 262, laws of 2012 (<https://malegislature.gov/Laws/SessionLaws/Acts/2012/Chapter262>) 330 CMR 31.00
- 2 Fact Sheets
 - Turf & Lawns
 - Agriculture
- UMass Amherst Extension Guidelines

We communicated with MDAR

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THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS

Department of Agricultural Resources
251 Causeway Street, Suite 500, Boston, MA 02114
617-626-1700 fax: 617-626-1850 www.mass.gov/agr



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Mark Young, President
Northeast Biosolids & Residuals Association
P.O. Box 422
Tamworth, NH 03886-0422

March 17, 2017

Dear Mr. Young:

Thank you for your letter dated March 2, 2017, expressing your concerns regarding the proposed amendments to 330 CMR 31.00, Application Requirements for Agricultural Land and Land Not Used for Agricultural Purposes ("Regulation").

We helped UMass Extension on a workshop

Presentations from November 2, 2016
Symposium “Managing Phosphorus in Organic
Residuals Applied to Soils”:

<https://www.nebiosolids.org/managing-p-in-organic-residuals-applied-to-soils>

The workshop was a partial success.

UMass Extension Vegetable Newsletter, December 2016:

“Phosphorus becomes a threat to the environment when there is a combination of source AND transfer.... For example, there is high risk of pollution from P applications on frozen ground, on slopes greater than 7% or within 25 ft. of a water source. In these scenarios, a field with low or below optimum P levels may actually pose a greater risk of pollution than a high-P field, especially if P was applied right before heavy rains.... Soils with above optimum P are not a threat to environmental contamination if there is low overland water movement or soil erosion.”

The workshop was a partial success.

UMass Extension Vegetable Newsletter, December 2016:

“Reduce the amount of P that is imported into our region and onto our soils by using local sources of organic residuals rather than purchasing P fertilizer where possible. Organic residuals such as compost have the added benefit of increasing soil organic matter and water holding capacity which will also reduce P runoff..”

What we're doing now:

- Considering research project to help inform UMass and guidance
- Or maybe we should write our own professional guidance (which can be used as long as UMass Extension guidance is missing).
- Continuing to monitor regulations: MDAR has still not released 2nd version of regs.

What you can do:

- ➔ Give input to your states' nutrient regulations
- ➔ Use best management practices for P applied in biosolids and other organic residuals
- ➔ Encourage use of local recycled P before importing more fertilizer P

Phosphorus Forum 2018



➔ <https://phosphorusalliance.org/>

Thank you.



**Ned Beecher, Executive Director
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