



Summer 2006, No. 1

LIMITING LAWN FERTILIZERS

Growing concern about algae in surface waters has led several municipalities to begin regulating lawn fertilizers. Manufacturers are responding by offering fertilizer grades with lower phosphate. Will these approaches be effective in improving water quality in rivers, lakes, and reservoirs?

Legislation is on the march. Areas in Florida, Maine, Michigan, Minnesota, Missouri, Washington, and Wisconsin have enacted ordinances limiting the phosphate in lawn fertilizers. In Ontario, the township of Georgian Bay recently passed a bylaw banning the application of fertilizer. In other areas, the merit of such legislation is still under debate.

Excesses of nutrients can indeed impair water quality. Phosphate in particular is the nutrient most often limiting the growth of algae in fresh water. However, adding nutrients to lawns does not necessarily add nutrients to water. In some instances it may have the opposite effect.

Turf researchers have shown that when lawns grow well, they absorb rain better. They shed less runoff water. Wayne Kussow, professor of soil science at the University of Wisconsin, states: "Properly maintained lawns have much lower phosphate losses than poorly maintained lawns." Martin Petrovic, professor of turf grass at Cornell University, won a 2005 Environmental Quality Award from the U.S. Environmental Protection Agency. He affirms: "A good fertilization program often reduces phosphate runoff."

A good fertilization program is a key component of proper lawn maintenance. Not all lawns need fertilizer or phosphate. But recent surveys show that many do.

On average, lawns are fertilized at rates far below recommendations. Homeowner spending on lawn fertilizer averaged only 71 cents per thousand square feet, according to a 2004 survey by the New York Agricultural Statistics Service. The Scotts Miracle-Gro Company reports that half of 80 million lawns receive no fertilizer at all.

In New York state, 23% of lawn soil samples showed a strong need for phosphorus. They tested "low". An additional 18% tested "medium", a level for which phosphorus would still be recommended. This information came from Cornell University's soil analysis laboratory, for the period 2001 to 2005.

Soil testing is not always practical for small areas. But other means can diagnose the cause when a lawn is growing with less than full vigor. Test patches of various fertilizer nutrients are one example. When the need for phosphorus is identified, the option to apply it responsibly should be available.

Low-vigor lawns are worse for water quality. The new low-phosphorus grades of fertilizer are valuable for many lawns. But limiting the options to correct nutrient deficiencies could lead to declining vigor for many others. Limit poor maintenance, not fertilizer.

—TWB—

For more information, contact Dr. Tom Bruulsema, Northeast Director, PPI/PPIC, 18 Maplewood Drive, Guelph, Ontario N1G 1L8, Canada. Phone: (519) 821-5519. E-mail: Tom.Bruulsema@ppi-ppic.org.