The Fertilizer Fear Factor

GREEN SIDE UP

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If you never looked beyond the headlines you would think that the primary cause of degraded water quality around Florida was caused by runoff and leaching of nutrients from lawns, sports fields and golf courses. Let's start putting lawn-fertilizer use in perspective. Some may get onto the streets and into the storm drains, but most of it goes on the grass and is used by the grass.

Scientists have compiled reams of peer-reviewed research that has consistently said over the past several decades that properly applied fertilizers do not cause any negative environmental impacts. The bottom line is that fertilizers are being made the scapegoat because end users are easy targets. We might spread nutrients on turfgrass, but detractors are spreading fear and the facts don't support their claims.

I recently attended a meeting that was aimed at reducing phosphorus inputs in the vast Lake Okeechobee Watershed. Legislators and even the governor have decreed that phosphorus inputs will be reduced or eliminated so that Lake Okeechobee can be restored. Their first draft said "NO" phosphorus will be allowed in the future. Common sense prevailed and instead a "Low" phosphorus approach is being tolerated.

Attacking fertilizers is a smokescreen because they make an easy target. If tomorrow a bag of 16-4-8 at Home Depot has a new label that says 16-2-8, the politicians will crow about how they reduced phosphorus by 50 percent. That's true for that bag of fertilizer, but not for the other 98 percent of the sources of nutrients being released in the watersheds.

But according to several PhDs sitting around the table, until the water in Okeechobee itself is treated, 20 years from now if no one applied fertilizer in the basin, the phosphorus levels would still be high. The lake bottom is phosphorus rich from eons of erosion and transportation of sediment into the lake.

In fact Dr. Bruce Augustine, formerly with UF/IFAS and now with the O. M. Scotts Company, has a compelling presentation that clearly shows that the most feared-and-maligned home-lawns sector is actually in reality a very minor player in the fertilizer factor. Do-it-yourself homeowner applications account for less than 2 percent of the applied fertilizer in the USA. And of the 80 million home lawns, 40 million receive zero fertilizer, 18 million receive one application, 10 million have two applications and, in the more high-end categories of three and four applications, there are only a million of each. In the USA, approximately 10 million lawns are maintained by lawn-care or pest-control companies.

What other possible sources of phosphorus (nutrients) should regulators, politicians and environmentalists acknowledge besides fertilizer? "One of the major nutrient sources dumping directly into our waterways is municipal and industrial treated water (sewage)," according to the December 2005 "Streamlines" newsletter published by the St. Johns River Water Management District. And let's not forget the septic tank systems that line river and lake banks in areas not served by sewer systems.

Soil erosion is a really big source of nutrients, especially when large tracts of land are exposed during development.

Many rivers in our watersheds cut across naturally occurring phosphate-rich deposits. We *mine* phosphate in Florida, for crying out loud.

Recent estimates by the U. S. Fish & Wildlife Service put the resident goose population in the Atlantic Flyway at over 1 million and growing at the rate of 8 percent per year since 1981. In the Mississippi Flyway the population is 1.3 million and growing by 6 percent per year. In one study of an urban lake in the Northeast, the phosphorus from goose poop was found to be five times higher than inputs from storm drains in the surrounding area. In 2001 a study of an urban lake in Wilmington, N.C. estimated that waterfowl droppings contributed 27 percent of the total phosphorus in the lake.

We don't have the colorful foliage change in Florida as do our northern neighbors, but every fall I see those bald cypress trees going bald, dropping their needles into the wetlands that feed into the creeks and rivers. And then there are the oak, maple, sweet gum and sycamore leaves finding their way into urban storm drains. In the spring, oak and pine pollen turns the air and every flat surface yellowish green with pollen dust. It also falls into the water everywhere, as do the blossoms and seeds of our prolific native and landscaped shrubs and trees. As far back as the 1970s a Univ. of Minnesota study found the act of sweeping the streets once a week could reduce phosphorus concentrations of storm water runoff by up to 42 percent.

People should use fertilizer responsibly. They should apply the right product at the right time in the right place at the right rate. Instead of proposing laws to ban fertilizers, politicians should be looking at the "Green Industries BMP Manual for Protection of Water Resources in Florida" and the fertilizer recommendations in this manual.

If officials are looking for easy answers, these manuals have been produced using sound science and under the scrutiny of and with the approval of the Florida Dept. of Environmental Protection. Instead of enacting meaningless, self-serving and often unenforceable local ordinances and pandering to the agendas of activists, legislators at all levels should spend their time and efforts on educating their citizens about these proven positive environmental practices.