

A simple soil test could save us millions

Robert Whitescarver 10:38 p.m. EST February 7, 2015



(Photo: Submitted)

Maryland's newly elected governor, Larry Hogan, recently repealed the state's Department of Agriculture's phosphorus management tool (PMT) regulation. His act made me gnash my teeth.

Farmers and legislators on the Eastern Shore had begged him to repeal the regulation because it would have forced many of them to cease applying phosphorus-laden poultry litter to soils already saturated with the nutrient. Those farmers would instead be forced to use commercial fertilizer with no phosphorus and balance nutrient application with crop needs.

Decades of repeated animal manure applications have overloaded many fields with phosphorus in the Bay watershed, including the Eastern Shore. There is so much phosphorus in these soils that it is polluting surrounding streams and the Chesapeake.

In the Chesapeake Bay watershed, 75 to 100 percent of the soil tests conducted on farm fields on the Eastern Shore of Maryland and Virginia, parts of the Shenandoah Valley and the Lancaster County region of Pennsylvania, have "excessive or optimum levels" of phosphorus. Crops planted on these fields will not respond to additional inputs of phosphorus. Additional applications of phosphorus on these fields will leach into the groundwater or runoff and become a water pollutant causing algae blooms, dead zones and weakened aquatic ecosystems.

Society as whole is paying hundreds of millions of dollars for nutrient management practices on farms to correct these abuses, but we end up with little progress.

Our tax dollars pay for nutrient management plans and planners, the development of "phosphorus indexes," the PMT, cover crops and all sorts of fancy combinations of crop management techniques that look good on paper but in actuality do little to reduce excess nutrients in the water. The result is inflated or misleading numbers.

Why don't we use nutrient testing in the water to measure success instead of equating the development of a "plan" to a nutrient-reduction coefficient?

Survey after survey shows that people don't mind subsidizing farmers when they are doing things that improve natural resources. Personally, I loathe subsidizing farmers that continue to pollute even though the light of science is blazing in everyone's eyes—including theirs.

This scenario has been going on for decades all over the country where poor land-use practices pollute water and affect everything downstream. Science finds a solution — polluters whine and bellyache while politicians delay action. Science finds another solution but makes it more complicated – polluters whine and bellyache while politicians delay action. It's the endless do-nothing loop. The result is more bureaucracy and paperwork as well as inflated, valueless numbers that make us feel like progress is happening while in reality, only a snail's pace of incremental change occurs.

The housing bubble that created our most recent economic recession was caused by inflated values, lack of oversight and politicians not paying attention to sound management. These same toxic principals—inflated values, lack of oversight and in the case of the PMT, a disregard for science—are causing a nutrient-reduction bubble in the Chesapeake watershed and beyond. In other words, we think we are reducing nutrients in the bay but we really aren't.

The answer to this nutrient management problem is very simple and we could save millions of dollars doing it.

Use a soil test.

If the nutrient is already in the soil to feed the crop, don't apply more. Use the money from all the crazy, complicated formulas that documented the false reductions to move the nutrients to fields that could use it or transform it into something useful.

Phosphorus is a valuable nutrient that is needed worldwide. It is in short supply globally and, unlike nitrogen, cannot be manufactured. Conserving it and moving it to deficient areas makes sense. Manure transport and transformation programs need to be improved, verified and fully funded.

In the poultry industry, nearly all the birds raised in this country are owned by very large corporations. These big poultry companies, called integrators, bring the phosphorus in through feed they purchase from the mid-west. The farmer, who works under contract to the integrators, feeds it to the chickens. But right now it's the farmer, who most likely took a loan out to build those poultryhouses, who is left with the debt, any dead birds and the manure. It's an out-of balance scenario all the way around.

We are all to blame for this, and there is something we can all do. Farmers need to fertilize according to a soil test; integrators need to take more ownership of the manure; scientists and environmentalists need to make solutions simpler; and politicians need to act using science. I promise, if we can do this, society as whole will be willing to pay for it.

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March 27, 2015, 5:56 p.m.