Q&A

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Questions?
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Protecting our precious water

I WAS DRIVING THROUGH SOUTH DAKOTA on my way to the Bighorn River in Montana to set myself right with the world by way of a tranquil float with rising trout when the phone beep interrupted my favorite annual dream. With trees left behind in Iowa the open expanse off bluffs, buttes, and badlands helps me imagine what it would look like to first take away the telephone poles and wires, then the fences, railroad, and boundaries, then buildings, and all those annoying "Wall Drug" signs. Once everything created since 1870 is gone I can just about see Sitting Bull on the horizon with a band of Hunkpapas, Lakota, Oglalas, and Sioux; I'll spare you my living in a tipi dream. The phone beep instantly recovers the earth with technology and progress as I decide to take another call because there is no phone service in Fort Smith on the Bighorn River; an important point when you really want to get away.

The Iowa DNR Source Water Protection Coordinator needed athletic field nitrogen recommendations for community planning teams who are addressing high nitrates in the source water capture zone for high schools. The simple answer is 2 to 4 lbs N/1000sqft/yr for soil-based fields and 4 to 6 lbs for sand-based fields.

It's also important to consider nitrogen source and timing of application to reduce nitrogen contamination of public water supplies. At least 50% of N applied should be from a slow release source. Soluble applications of N, such as urea and ammonium nitrate, should be made in a manner to avoid runoff from rain events and should never be applied to frozen ground where N easily runs off in winter or early spring. Leave at least a 10-foot nitrogen-free buffer around all open grate drains and avoid fertilizer application on hard or impervious surfaces.

We are correct to point out that there is good evidence that a thick stand of grass slows surface water movement and reduces nitrogen runoff, but intense traffic areas having less than 50% turfgrass cover can experience a two-thirds increase in surface runoff, so a rapid re-vegetation strategy is not only necessary for playability but also important to reduce nitrogen loss.

Athletic fields are usually built with a network of subsurface drains and a crown or surface slope up to 1.5% for the sole purpose of encouraging drainage and reduction of soggy fields. Think about it; that water goes somewhere down the stream of flow, and what you should be asking yourself is does it contain some of the products I have applied and am I doing everything possible to reduce contamination of water that leaves the property under my control?

Does your environmental report card contain any of these positive steps to reduce nitrogen runoff on your entire facility and not just the field? Examples are slow release nitrogen, bioswales, maximum turf density, maximum turf height, reduced or no fertilizer buffer zones near water ways, water catchment and water reuse systems, and rain gardens.

Also, avoid or sweep up any inadvertent fertilizer application on hard surfaces such as sidewalks, streets, or parking lots. Do not use a hose to wash fertilizer down the drain or storm water system, it all ends up in our rivers or lakes that may be used for drinking water.

So, every time I momentarily lift one of these amazingly beautiful trout from many of the rivers fished from Iowa to Montana, I ask myself, is my turfgrass industry doing everything possible to reduce contamination of the precious water they live in? You can answer that for me by turning your awareness into action. Tell me your environmental stewardship story and I'll make sure it gets told to those who need to hear it.

I really wanted this message to be about making sure you take some time to recharge your spirit along the way as I know you put in many long seasonal hours to get your fields ready during the playing season. Trout fishing is a passion that rekindles my spirit and also reminds me that we all have a role to play in conserving and protecting our precious water supply. ■