Less is More

Frank Rossi encourages superintendents to reduce fertilizer and pesticide use

BY JOHN WALSH, CONTRIBUTING EDITOR

rank Rossi, Ph.D., associate professor in the department of horticulture at Cornell University, wants superintendents to think about the amount of fertilizers and pesticides they use more carefully and suggests ways to cut back on potassium, nitrogen and phosphorus.

Rossi, who's been researching potassium use for 13 years, questions whether superintendents are applying too much of it.

"I'm not convinced you're getting the desired response from the amount of potassium you're applying," he says. "You can afford to reduce or eliminate potassium for a period of time. It's a low-risk savings. Yes, potassium is vital to the plant. It's so much so the plant manipulates its chemistry to make sure it has enough. Reducing fertilizer input can enhance the nutrients that are already there. Plants don't have to work to collect

potassium because the soil does all the work."

Rossi's research has been done solely on cool-season grass, but he says no research indicates warm-season turf needs more than one-half to 1 pound of potassium.

Rossi, who's not a proponent of foliar fertilization, says soil has an innate ability to supply nitrogen to older, established turf via organic matter that's been built up over time. He predicts that during the next five to 10 years superintendents will be testing soil for nitrogen more often. Soil testing can help superintendents ratchet down how many nutrients they're applying.

"Farmers have been doing this for 20 years," he says. "They have to be efficient. Putting less nitrogen into the environment is probably a good thing."

Additionally, Rossi says weaving in bioproducts such as Civitas and Rhapsody into a pesticide program can











A Personal GIS Milestone

After 30 years of research and two years of writing, I had the honor of signing my own turf book.

BY ANTHONY L. WILLIAMS, CGCS, CGM, ENVIRONMENTAL EDITOR

Every year the GCSAA bookstore showcases select authors and their books at the GIS. It is a memorable experience just standing in front of the signing table listening to tales of enlightenment. The book signing is a time-honored right of passage for every author. Hearing the author talk about the content and processes behind the book is very motivating.

This year I found out what it is like to sit behind the signing table. My first book, The "Environmental Stewardship Toolkit," published by John Wiley and Sons, made its debut. The first copies literally shipped directly from the bindery to the bookstore tabletop!

The fact is, you put two years of writing and editing into a book and it becomes 320 pages fresh off the presses. Your thoughts race as you wonder if the book will be well received.

I bought a quick-drying blue pen made from recycled water bottles for the occasion and faced one of the most defining moments of my life. The book signing was successful. I will never forget the experience, nor everyone who stopped by, bought a book or offered encouragement.

reduce the amount of pesticides that need to be applied. There are three ways to reduce pesticide use:

don't spray;

lower the rates; and

> extend the intervals of products.

Bioproducts can allow superintendents to get the same control with fungicides at a lower rate. Large chemical companies are adding plant defense activators into their pesticides because bioproducts are so popular, Rossi says.

Rossi also has been testing the reduction of preemergent herbicide applications in fairways at Bethpage State Park in New York. In cases where two years of preemergent herbicides were skipped in the fairways, crabgrass infestation didn't resurge.

"If you can trim a few thousand here or there from your chemical budget, you can put that money toward, say, labor," he says. ■





