

Turf Chemicals — 1992

by Stan Fredriksen

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Let's push aside the present for a minute — and jump ahead to the year 1992. You're a golf course superintendent at a beautiful 18-hole course. What kind of maintenance program will you be following? Especially, what kinds of turf chemicals will you be using?

Good question! But in the light of present-day turf research, you might make some pretty good guesses at the answers.

In the overall, your job will be a much easier one than it is now — because you'll have better tools — some of them **chemical** "tools". Quite likely you'll spend much more time thinking, studying, planning, and creating — and less time facing crises and solving problems. Let's imagine how a typical day might go for you.

You'll reach the course at, say 9:00 A.M. No need to get there earlier — you know the course is in good shape — all ready for play — even if golfers wanted to start at 7:00 A.M. — or 6:00 A.M. Why? For many reasons — some of them **chemical** reasons. Let's take a look.

When you rebuilt those greens a couple of years ago, you had incorporated into them soil chemicals that provided extraordinary benefits. These chemicals included nutrients and micro-nutrients to keep your putting turf growing just right for, perhaps, 5 years or more. These nutrients are now available to your grass plants precisely in accordance with their needs — you won't have reason to fertilize for at least another three or four years.

At the same time, anti-pest chemicals were also incorporated into the soil. Pre-emergence weed and weedgrass chemicals are there — any weed or weedgrass seed that tries to germinate is "knocked out" before it can develop into a plant. Yet your putting turf is healthy and beautiful — completely free from weeds — yet not adversely affected by the chemicals.

You have no harmful turf insects, either, because your maintenance program has eliminated them. You've imported a species of desirable insect that feeds on sod webworms, frit flies, army worms, chinch bugs and other harmful pests, keeping them out of the turf. And if any unwanted insects do invade, they soon die because of chemicals in your soil that disrupt life cycles or stop their reproductive processes.

Nor do you have fungus disease problems in that turf. Into the soil you have incorporated true systemic fungicides. Each grass plant, over a period of, say 5 years or longer, picks up some of the fungicide through its roots, and translocates it throughout its system. It kills fungi anywhere within the plant — and has such broad-spectrum effectiveness that it prevents **all** fungus diseases, not just a few.

And, if you occasionally feel you need to re-seed turfgrasses, you'll apply pre-treated seed. That is, the seeds themselves will have been treated with chemical fungicides whose activity will stay with the grass from its seed and seedling stage throughout its life span, simply warding off all attempts by fungi to infect the plant and cause disease.

Other chemicals will have been incorporated into the soil to give it perfect physical characteristics — firmness underfoot, but with just enough resilience to hold a golf shot, and recover "on its own" from the ball mark.

You won't need to mow today — let's say you mowed greens, tees and fairways just yesterday. It may be a week before you'll mow the greens again — two weeks before you mow tees — three weeks before you mow fairways. You see, the chemical growth regulators you applied sometime back are giving you **controlled** turf growth. They've cut your mowing — and your mowing costs — by, perhaps, 75%.

Throughout your day, in 1992, your main tasks will be those of creating new beauty at your course, and new items of interest for your members. Your extra time to think and plan will lead you to new opportunities to make that course the best ever. Jobs that do need doing will be accomplished by a few competent men, and your supervision over them will be at a very minimum.

Yes — the next 25 years will bring many exciting changes in your management of fine turf — many of them through the magic of chemistry — all of them designed to give you and other turf managers of tomorrow capabilities beyond those you even dream of today. And as you grow, and move ahead in your career, you'll find the Chemical Industry growing and moving ahead, too — pushing forward with research toward new chemical "tools" that will make that future career of yours a most rewarding one.

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Turf training at Texas A&M comes under the Soil and Crop Sciences Department of the College of Agriculture. Students can enroll in agronomy or plant and soil science curriculums with a major in turf management. Turf and related courses are then worked into the program, which offers a B.S. on completion.

Directing turfgrass training at Texas A&M is Dr. George G. McBee, Assistant Professor. Initiated more than 20 years ago, the Texas program also offers studies towards M.S. and Ph.D. degrees. Curriculums for advanced studies are individually outlined.

Enrollment in turf is currently eight. The course has produced approximately 25 graduates in the past 10 years, with three graduating in the last class. To enter the turf program, students are required to meet University entrance requirements and have an interest and desire to work in the turfgrass field. On-the-job training can be, and generally is, included as an undergraduate requirement.

Starting dates in 1967 and 1968 fall in Feb., June, and Sept., and early application is suggested. Requests for general information or admission data can be directed to Dr. McBee or to the University's Registrar. Tuition costs come to \$50 for each full semester, not including fees and other expenses.

Several professors in Texas A&M's Department of Soil and Crop Sciences teach subjects relating to the turf program.