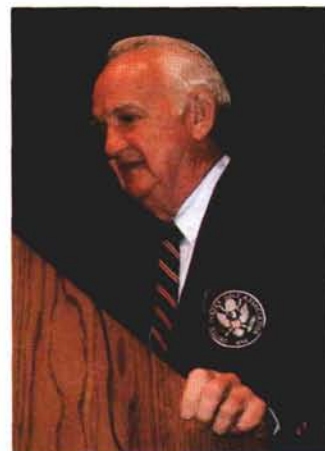


One Business In Which Success Is Not Always Found At The Bottom Line



Marion B. Farmer

February 2, 1987, Phoenix Civic Plaza,
Phoenix, Arizona

FOR THE SIXTH consecutive year, the Annual Green Section Education Conference was again held in conjunction with the Golf Course Superintendents Association of America International Turfgrass Conference and Show. Marion B. Farmer, of Los Angeles, California, Chairman of the USGA Green Section Committee, introduced the morning's speakers before an audience of 1,100 at the Phoenix Civic Plaza's Symphony Hall. The proceedings of the program are presented in this issue of the GREEN SECTION RECORD.

BEST TURF TIPS OF 1986 — PART I

Having completed one of their most successful Turf Advisory Service Visiting Service seasons ever, consulting with 1,200 USGA Member clubs and courses and their superintendents in 1986, the nine Green Section Agronomists offer a new edition of "Best Turf Tips of 1986 — Part I." Parts II and III will be found later in this issue.

Of Sprays and Sparks

by **GARY A. WATSCHKE**

Agronomist, Northeastern Region, USGA Green Section

YIPES! STRIPES! How many of us in the past have seen the sometimes startling appearance of turf caused by errors in applying various chemicals? Stripes and other geometric patterns are often caused by clogged nozzles, skips, overlaps, and undulating terrain, and by "boomless" spray techniques.

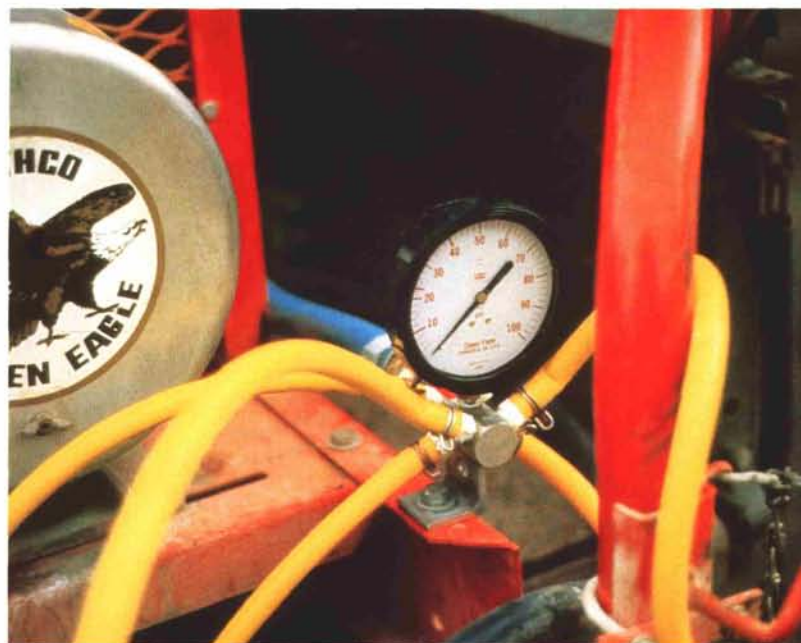
The poor results created by these problems can become magnified when using some of the newer turfgrass chemicals that come in highly concentrated formulations. Several plant growth regulators, a few herbicides, and some fungicides employ recommended

rates of only a few ounces of product per acre. Mechanical problems associated with the misapplication of such potent products can be significantly reduced.

Scott Niven, superintendent at Stanwich Golf Club, in Greenwich, Connecticut, has found a spray system that provides near perfect results. The heart of the system is a manifold device that allows each nozzle to have its own delivery hose. This insures that all nozzles will receive the same volume of spray mix at the same pressure. Terminal hardware consists of individual petcocks, no-drip check valves, and hollow cone stainless steel nozzles. The pet-

cocks can provide sectional operation, and the no-drip check valves provide instant shut-off.

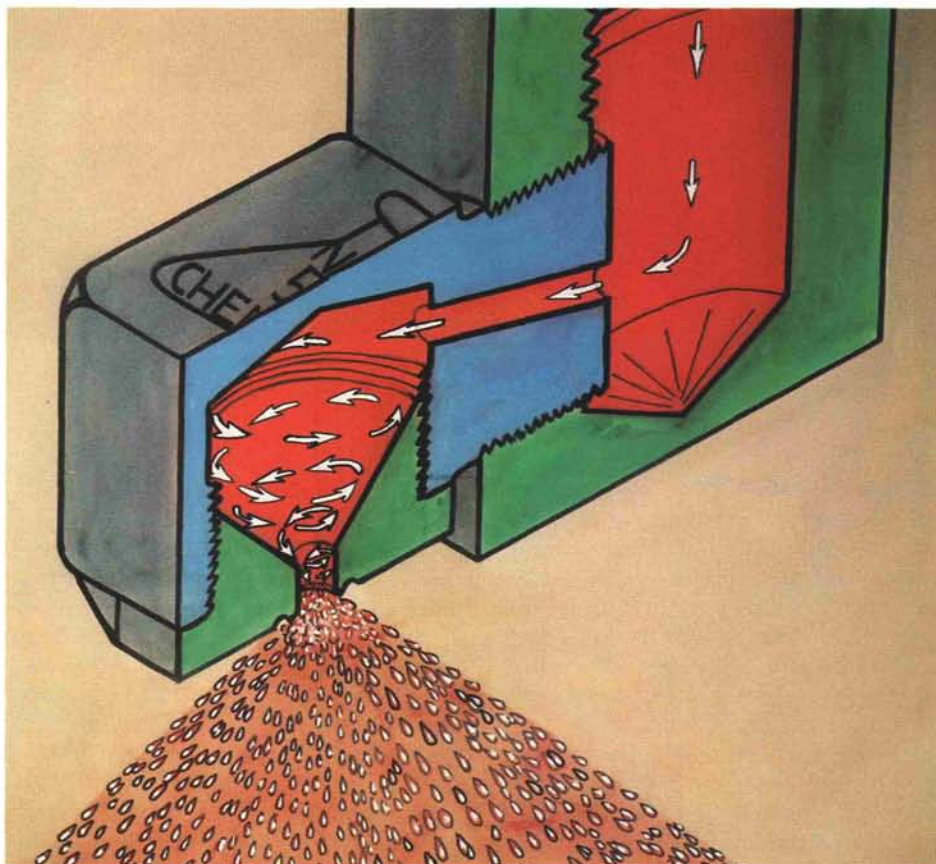
The metercone nozzles are similar to Whirljet and Delevan Rain Drop nozzles. Consisting of a whirl chamber, sometimes a stator, and always a large orifice, these nozzles combine to produce a large spray droplet in a hollow cone pattern. They are spaced 20 to 40 inches apart on a boom that can be fixed anywhere from 20 to 40 inches above the ground. The height doesn't seem to be critical, because the nozzles are attached at a 45 degree angle to the ground, and the spray pattern will actually resemble



a waterfall. Drift has not been a problem even in 15-mile-per-hour breezes, because spray fines are minimized by the large droplet size.

Scott located this equipment at Chem Farm Inc. of Evansville, Indiana, and has produced picture perfect results using such sensitive products as Cutless, Embark, and Paraquat for *Poa annua* control.

Another turf tip was discovered at the Haverhill Golf and Country Club, in Massachusetts, where Mark Taylor is superintendent. Mark's mechanic grew tired of the perpetual problem part-time workers had in jump-starting equipment. Many of them were afraid of electric shock, and on occasion the polarity was reversed. To simplify matters, the alligator clips on the jump cables were replaced with the male plug commonly found on electric golf cart chargers. All equipment has been fitted with the matching female receptacle found on electric carts. Now the employees have only to plug one vehicle into another. No more crossed wires. No more sparks.



(Top, left) Individual petcocks, no-drip check valves and stainless steel nozzles make up the terminal hardware.

(Top, right) Each nozzle has its own hose from the spray distribution manifold.

(Above) The nozzle with whirl chamber and large orifice.