The 50th International Turfgrass Conference and Show in early February had all the elements of a successful trade show, a fantastic location in Atlanta's Georgia World Congress Center, more than 6,000 attendees and 200 exhibitors, good hotels, and a speaker program kicked off with a strong motivational speech. Add the organization and service of the Golf Course Superintendent's Association of America staff and the net effect was a model trade show.

It was obvious that GCSAA had made changes from previous shows to provide a more responsive program. Technical subjects were simplified, superintendents took on a bigger share of the speaking role, and special interest topics were broken out from the rest of the sessions. The exhibit floor allowed more room for delegates to see booths and relax. Transportation from hotels was very convenient.

Session topics included landscaping, water and effluent, fertigation, turfgrass improvements, root-zones, personnel management, composting, and diseases. Sand topdressing was one of the most controversial topics. Three superintendents described their experiences with sand topdressing. Ray Knapp of Tuckaway Country Club in Franklin, WI, has found regular light topdressing with sand provides a considerable amount of sand over a year's time and eliminates thatch problems. Knapp has all but eliminated aerification of greens and has reduced application of fungicides because of the topdressing program.

George Burgin of Atlanta Country Club started using sand topdressing to correct compaction problems and to reduce aerification from five times per year. Burgin stopped his topdressing when he noticed while cutting cups, that the root system extended only into the sand and not below. Burgin said, "Sand topdressing may be necessary under poor soil conditions, otherwise leave a good thing alone."

Reduced Poa annua population was one benefit of sand topdressing according to Charles Nolan of Inglewood Golf and County Club, Kenmore, WA. Nolan's greens were constructed in 1918 of organic soil and contain no drain tile. Nolan has adapted a topper so that a two-man crew can topdress all 20 greens in one morning.

Both Nolan and Knapp have customized their topdressers to improve speed of application and loading. Disturbing play with heavy applications is generally avoided by more frequent light topdressing.

How to live with rising water costs and drought was discussed by Jim Prusa of Pasatiempo Golf Club in Santa Cruz, CA. Deciding where not to irrigate because of rationing, guarding against unscrupulous well drilling companies, and handling monthly water bills of $12,000 for irrigation are just three of the reasons Prusa has been forced to make sacrifices at Pasatiempo. To compensate for the cutback in water usage, Prusa has increased aerification, sand topdressing of greens, mowing heights, hand watering, efficiency of irrigation system, use of native plants in the landscape, and use of drip irrigation. The biggest move is to arrange the use of effluent water under a publicly funded project. Not only will the state and federal governments pay the brunt of the installation cost, but Pasatiempo's water rate will be reduced by two thirds.

Effluent water must be checked for salt content and other factors which can affect plant growth. Dr. Wade Berry of the University of California, Los Angeles, suggested USDA Handbook No. 60 for ac-
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ceptable levels of salts in effluent water. Berry said effluent usually contains desirable elements like phosphorus and potassium, but that these chemicals will also encourage algal growth in ponds and streams and possibly on grass.

Richard Nugent of Killian and Nugent, Palatine, Illinois, said the government will allow up to 85% percent financing for distribution of effluent on land. Any system using effluent water, however, must contain storage facilities since sewage plants work all year and seasonal contracts are less attractive. Other considerations are good drainage to help leach out toxic metals, odor in early spring, and education of the golfer to the use of effluents.

Dr. Ralph Engel, professor of turf science, Rutgers University, New Brunswick, NJ, showed that ideal root growth conditions are not also ideal for appearance in bentgrass. One to three waterings per week with good soil penetration should be sufficient, Engel stated. Syringe as needed and provide proper drainage. Watering practices can effect varieties dominating. Bentgrass requires the most water, turf type ryegrasses require more than bluegrasses.

Dr. Houston Couch, author and professor of plant pathology at Virginia Polytechnic Institute, described basic characteristics of pesticide carriers. Couch said data is lacking on the effect of the amount of water carrier in a mix. However, it is known that pH of the water carrier affects the length of time a mix can be stored and remain effective. Couch said strong alkaline water will deconstruct fungicides. Basically, wettable powder forms of fungicide require less material and perform more quickly and more effectively than granular forms. However, Couch said systemic fungicides have greater potential when applied in granular form.

ChemLawn Vice President Robert Miller said the pH of the water carrier can reduce the effectiveness of dylox from days to an hour. Miller said timing incompatibility also exists, such as combining a preemergent herbicide with a broadleaf contact material.

Miller made these suggestions for mixing pesticides:
—never mix pesticides in concentrated form
—never mix organic fungicides with fungicides using xylene as a solvent
—place wettable powders in tank first, the flowables, water soluble powders, surfactants, and emulsifiable concentrates.
—do jar test and test plot when possible
—when mixing pesticides with soluble fertilizer use urea in preference to other water soluble fertilizers.

Dr. Reed Funk, research professor of turfgrass agronomy at Rutgers University received GCSAA’s Distinguished Service Award for his work with turfgrass breeding. Dr. Funk’s program is one of the most extensive and productive in the world. A considerable amount of variety improvement and testing has taken place under Funk’s direction.

Charles Tadge, superintendent of Mayfield Country Club in South Euclid, OH was elected president of the Association. Melvin Lucas, superintendent of Piping Rock Club, Long Island, N.Y. is the new vice president.

The 1980 GCSAA Show is set for St. Louis.