Virginia Turfgrass Council Discusses

THE TURF MANAGER AND THE ECOSYSTEM

B. K. Powers, left, of Roanoke, Va., is presented the R. D. Kake Memorial Award for outstanding service to the turf industry by Lee C. Dieter, president of the Virginia Turfgrass Council.

BE MORE KNOWLEDGEABLE, more public relations conscious, and especially more careful with pesticides than you have been.

That's the summarized advice given at the 11th Virginia Turfgrass Conference to fulfill the theme: The Turf Manager and the Ecosystem.

"You had better be more careful than you have been; you're more liable now," cautioned Arthur T. Hart, state department of agriculture, in discussing Virginia's new pesticide legislation. For example, he said, it is now "against the law" to misuse a pesticide, that is, to use it contrary to label directives.

All pesticides and their uses are currently under study, Hart said, with a report due by Dec. 15, 1971. Concerning the effect of findings on legislation in 1972, Hart predicted "more restriction on custom applicators and commercial users."

Several speakers referred to a massive knowledge gap that exists and contributes to the increasingly restrictive climate in which chemical users must operate.

Concerning information that is published, Dr. James O. Riggleman of DuPont observed that "We know what to believe, but the public doesn't."

A partial explanation, said Dr. W. H. Garman, vice-president of the National Plant Food Institute, is that "many people are not equipped to cope with statements about the environment, because they lack an understanding of chemistry and biology. Students aren't getting enough of this training."

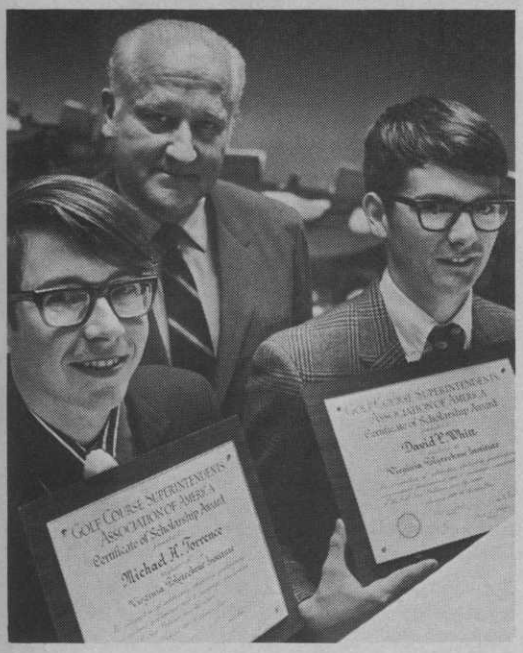
And many ecologists, he continued, "do not think about the practicality of their ideas. We just can't farm like our grandfathers. We wouldn't be here."

He called the League of Women Voters' campaign in Minneapolis futile effort in seeking to end the use of lawn fertilizers containing phosphates.

"No where will you appreciably change the effect of the phosphate content of water. Taking all of the phosphates out of detergents will not stop anything."

Even if a method were devised to take 95% of the phosphorus out of water, Dr. Garman said, the remaining 5% is enough to feed all the algae that would grow. Taking phos-

Virginia Turfgrass Council leadership for 1971 is, from front to rear: Lee C. Dieter, president; Jack Kidwell, vice-president; Earl O'Dell, secretary-treasurer; directors Richard Amidon, Paul Weeks, B. K. Powers, Sheldon Betterly, Jack Henry, William Mooney Harvey Carpenter, John Shoulders, Extension turf specialist, Virginia Polytechnic Institute; Dr. Richard Schmidt, associate professor of agronomy, VPI; and Dennis Brown, Division of Regulatory Service, Virginia Department of Agriculture. Amidon, Weeks and Henry are new directors.



Robert F. Shields, past president of the Golf Course Superintendents Association of America, presented GCSAA scholarships to Michael H. Torrence, left, of Appomattox and David P. Whitt of West Point.

phorus out of sewage isn't the answer, he contended. Taking out the organic carbons would help, he added, because as organic matter decomposes, it gives off carbon dioxide which is immediately taken up by living organisms.

A greater effort must be made to question the inaccuracies that reach the mass media, he continued. For example, the decline of fish catches in a lake may be blamed on pesticides or pollution, when in fact the real cause may be that the lake has been overfished. The sport fish population is down and the rough fish have taken over.

As unrealistic as some environmentalists get, they do serve a purpose, said Dr. R. E. Schmidt, agronomist at Virginia Polytechnic Institute, "in calling attention to such things as dirty waters."

Genesis does state that man should multiply and conquer, he continued, and that priority is given over all other life. But he added that man is also cast in the role of steward.

Though he described some environmentalists as "Prophets of Doom," Dr. Schmidt suggested that they "may rally us to perform our stewardship."

We can solve our problems one of two ways—in a destructive or creative way, he said. We can eliminate causes, that is, "we can eliminate people, or animals. But which people? Which animals?"

As a part of seeking creative solutions, Dr. Schmidt said the turf manager must realize that turf is an important entity in our sophisticated, modern society.

"As the work week shortens and recreation increases, turf's effect upon human social behavior will be greater. You have a new incentive—that of being a human ecologist."

Dr. Schmidt suggested five theories the turf manager should consider in selecting and managing turfgrasses: (1) tolerance; (2) limiting factors; (3) substitutes; (4) competitive stamina; and (5) natural selection.

Though attention seemed focused on pesticide regulation and on the effects of pesticides on the environment, reports of continuing research in other areas were presented.

Studies by agronomist Vince Snyder indicate that iron applications to turf can reduce dessication, increase rooting capacity, and increase top growth.

Though findings are significant, Snyder indicated more data must be obtained before the practice can be officially recommended.

Iron chelate at four ounces per 1,000 sq. ft. and one pound of nitrogen per 1,000 sq. ft. showed a marked improvement in turf color. Applications were made in October, November, December and February on Penncross Bent. Color response was noted within 24 hours, he said. It peaked in four to five days and lasted 1½ months. Spring growth came three to four weeks earlier, an effect he believes was produced by the heat aborption capacity of the turf's darker color. Although color was about the same in summer, Snyder found that nitrogen with iron increased root growth.

Dr. A. J. Powell of the University of Maryland accused turf men, of all people, for not taking seriously the old truism for seeking problem solutions: "Get to the grass roots."

Turf managers should be constantly checking the root system, "looking for thick, white, succulent, heavily branched roots."

"Just looking at top color can be misleading," he said. "We have to be able to sacrifice color in the summer time," he added, suggesting lighter fertilizer applications to avoid over-taxing the root system in stress periods. Among factors affecting root health, he listed: nutrients and soil pH, temperature, mowing height, moisture and light.

To improve the cold tolerance of bermudagrass, Dr. W. B. Gilbert, agronomist from North Carolina State, suggested adding potash in August. For example, he reported

trials showing that whereas a 4-0-0 fertilizer ratio produced a 50% survival at 23 degrees, a 4-1-5 ratio gave a 50% survival at 17 degrees.

Other factors that affect cold tolerance, he said, include drainage, compaction, mowing height, and traffic. He strongly recommended a spring management practice of spiking, airifying and verticutting.

Mixtures are best when overseeding bermudagrass, Dr. Schmidt advised. Two seeding rates he recommended in pounds per 1,000 sq. ft. were: Pennlawn, 15, annual rye, 15 and Seaside bentgrass, 2; or Pennlawn, 15, and Manhattan, 15. A new variety, Pennfine, looks good also, he said.

The majority of irrigation equipment is basically good, reported John T. Singleton of Toro Manufacturing Co., "but the problems will come with the installation." The reason, he said, is that no one manufacturer offers a "total system." Pumping is the heart of the system, and that's a separate industry, he added.

You must have a good designer and he must see the course before he begins, said Singleton. Secondly, you must buy the best equipment; and thirdly, it must be installed properly. "There is no trade-in on a bad system."

"The more sophisticated a system, the greater the need for a service policy," he recommended.

We have come up with two new diseases for you to worry about, reported Dr. H. B. Couch. They are rhizoctonia leafspot on tall fescue and a new species of helminthosporium on Kentucky bluegrass. Controls of the latter disease aren't known because "we're not sure what it is yet." Most fungicides will control the new fescue disease.

Do you have turf areas that repeatedly are under stress? Look for these possible causes, suggested John Shoulders, VPI Extension turf specialist: temperature (northern or southern exposure), soil mixture (a good one, he said, is 45% mineral, 5% organic, 25% air and 25% water), turf variety, soil pH, fertility, thatch, and water management.

When replacing divots in an athletic field, Shoulders suggested digging two to three inches deep. Replacement sod can't be kicked out and it blends immediately with surrounding turf because it doesn't go through a stress period.

Leland H. Bull of State College, Pa., left, former state secretary of agriculture, was honored recently for his administration's statewide survey of turfgrass. Albert W. Wilson of Shawnee on Delaware, president of the Pennsylvania Turfgrass Council, presented the plaque. The study found that production and maintenance of turf was a leading industry.

In closing out the conference, attended by more than 300 turf specialists, Dr. R. E. Blaser, another VPI agronomist, warned that while the turf manager is "gravely misunderstood," the situation is "going to get worse." Only time may provide some of the answers regarding the improving of the environment, he said. In the meantime, the important goal of turf specialists must be to "keep growing professionally."