

TURFGRASS

Visualizing yourself as a turfgrass root



To get the proper perspective on dealing with the below-ground influences on turfgrass plants, Bob Carrow, Ph.D. at the University of Georgia, says you have to "visualize yourself as a root."

Getting "down and dirty" about roots, Carrow outlined their functions at Turfgrass '88 in Baltimore: to anchor the plant, absorb and translocate nutrients and water, synthesize and transport certain growth-regulating hormones, and help store carbohydrates.

To further understand roots, he advised familiarization with characteristics such as growth cycle, rate of extension, depth and density and genetic limitations: "We have to work within the genetic potential of the plants."

Root strength can be limited by physical and chemical properties of the soil, he noted. Compaction, oxygen level, water content and soil temperature limit roots physically. Chemically, pH, nu-

trient levels and balances and salt levels all affect root potential. Influences from other organisms also play a part.

So what does the turfgrass manager do to improve rooting? For starters, Carrow suggests selecting species and cultivars with genetically better rooting systems, information which USGA Green Section can provide.

Secondly, promote maximum net carbohydrate production with greater leaf area from higher cutting heights, provide sufficient nutrition and light and avoid consistent drought stress.

Also, avoid depleting carbohydrate reserves from excessive nitrogen feeding, over-watering and close mowing.

Physical and chemical soil conditions not conducive to strong root growth should be corrected, along with poor biological soil conditions such as the presence of diseases, insects and excessive thatch.

EQUIPMENT

Utility tractors great for landscape chores

Because of its versatility, the compact utility tractor is becoming more important to the landscape/golf course market.

"If mowing is the only thing this guy does, I'll sell him a mower," says Martin LaRue of Brooklyn Tractor and Mower, Cleveland, Ohio. "But if he's going to do more than mowing, I sell him a utility tractor. They're virtually the same price."

The compact utility tractor falls between riding lawn mowers and large (20 to 80 hp) tractors, making it useful for large mowing jobs and/or small landscaping chores.

Most compact utility tractors are made overseas. They come with a variety of accessories ranging from post-hole diggers to loaders, backhoes, plows and mower decks.

Landscapers use them for a variety of tasks while golf course superintendents usually pull reel mowers in gangs behind them.

Probably the most important factor in selecting a compact utility tractor is the amount of power in the power take-off (PTO). Fifteen to 20 hp is usually enough for light landscaping jobs, but golf course superintendents who have larger (seven gangs or more) mowers need at least 30 hp, according



Utility tractors like this one can double as grass mowers.

to LaRue. And for production mowing, a machine with cruise control eventually pays financial dividends.

Ground speed should be one of the

least important factors in selecting a compact utility tractor. Most compact tractors don't top 12 mph for safety reasons.



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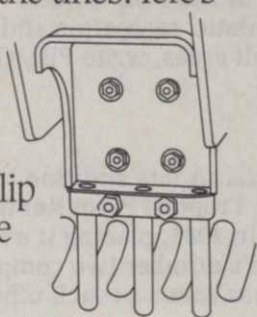
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SHORT CUTS

DIAGNOSING FAILURES...Research assistant Doug Davis of the University of Maryland suggests some reasons why the new post-emergence grassy-weed herbicide Acclaim! might not have been so effective in 1987. It's not the product—it's application timing and technique, Davis surmises. Acclaim! may not be wholly effective if: it is applied under dry soil conditions; it is applied with a flood jet nozzle; it is applied with a backpack sprayer; it is applied with a broadleaf herbicide in tank mix or within five days of broadleaf application; grass is mowed within 24 hours of application; it rains before Acclaim! has a chance to dry on leaves; or it is applied at a rate too low for weed size or with improperly calibrated equipment.

TOP 50 REVISITED...In "The Best of the Rest" list appearing in the February issue of *LANDSCAPE MANAGEMENT*, R.B. Stout, Inc. of Akron, Ohio was inadvertently left off. The company's sales of \$3.2 million in 1987 fell just short of the Top 50.

FOOD FOR THOUGHT...That's what Jack Henry of Kidwell Turf Farms offered the Virginia Turfgrass Association after 24 years as a golf course superintendent. Said Henry: "Longevity at a single club may be overrated. Move when you're young; don't move when the kids are in school; move again when they've graduated." Other Henry observations: "Plan your vacation time, then take it. You might as well accept the fact that you'll never get everything done;" "The bigger the job, the bigger the problems. Be careful when you add responsibility (new holes);" "Avoid zealots, fanatics and self-promoters;" and "Try to make it fun. No one else takes us seriously, so why should we?"

SHADES OF THE SUPER BOWL...Just one week before the 1988 Super Bowl was to be played, Washington Redskins general manager Bobby Mitchell, asked quarterback Doug Williams if he would like to meet some people at the Virginia Turfgrass Conference. Williams said he would be too busy—until Mitchell told him the turf professionals wanted to hear his views on natural vs. artificial turf. "Where do I have to be, and when?" Williams quickly piped up. He had only good things to say about playing on natural turf during the meeting in Richmond.

FREEBIE...For a free copy of the PBI/Gordon "Vegetation Management Program" for athletic, recreation and park areas; boulevards and other greenbelt areas, write PBI/Gordon, Box 4070, Kansas City, MO, 64101.

TOP 50 REVISITED AGAIN.....A late addition to the Top 50 landscape contractors of 1987: Tropical Plant Rentals, based in Chicago, grossed \$35 million in 1987, placing it even with the Brickman Group as the nation's number two company by volume of sales. The company has seven branch offices and 700 workers.

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bate is significant because both the identity and the cause of a disease are crucial to its control.

"This explains many of the peculiarities we are obtaining with standard control recommendations," Jackson explains.

Houston Couch, Ph.D. of VPI-SU, who did most of the initial work on fusarium, says that there as many as 17 different diseases with similar symptoms. He has asked some fungicide manufacturers to specify which of the diseases their products control, and to change labels accordingly.

LEGISLATION

Judge approves use of diazinon

An EPA administrative law judge ruled in favor of diazinon manufacturers, but placed tighter restrictions on the insecticide's use.

Last year, the EPA proposed cancellation of diazinon's use on golf courses and sod farms stemming from reported bird kills. The decision was handed down Jan. 25 by Judge Gerald Harwood. It states that golf course and

sod farm registrations for all products containing diazinon not be cancelled but placed under the "restricted use" classification. Harwood also ordered a change in diazinon product labels to include application restrictions proposed by Ciba-Geigy to reduce the risks diazinon application on golf courses and sod farms may pose to birds.

The decision is good news for golf superintendents, according to Bill Liles, director of the Turf & Ornamental Department at Ciba-Geigy, the major supplier of diazinon. "We are especially happy with the strong support we got from the GCSAA. The superintendents provided expert testimony at the hearings about how diazinon is an important tool for insect control in their operations."

ATHLETIC TURF

Musser Foundation breaks off NSTC

The Musser Foundation has told the National Sports Turf Council (NSTC) that it will have to stand on its own. The decision, made at the board of directors meeting in Houston last month, was unanimous, according to Musser president Frank Dobie, superintendent of Sharon Golf Club in Sharon, Ohio.

"It was time the council be launched on its own," Dobie says. NSTC began two years ago as part of the Musser Foundation. Last year, it moved its headquarters to the USDA office in Beltsville, Md.

NSTC had used about \$6,000 of Musser Foundation funds, which Dobie says won't have to be paid back. But Jack Murray, first vice president of the Musser Foundation and NSTC co-chair, says the council has raised enough money to pay back the foundation.

The future of NSTC has not been determined. Murray called being separated from the Musser Foundation, "very disappointing." "We don't have a firm foundation," he says. "I thought we had it as an arm of the Musser Foundation."

But he still has high hopes for NSTC's future. Murray says he would still like to hire a full-time person or staff to run the NSTC and even lobby in Washington. "We need to get more input at the grass-roots level and to work with states, different leagues and high school athletic directors," Murray says. "Our best bet is to work through extension agents."

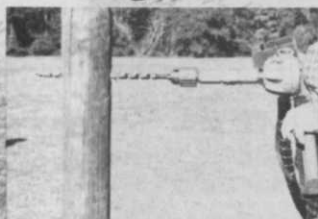
For the time being, NSTC will continue to work out of the USDA office in Beltsville, Md.

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