

Turfgrass Matters



July 1994, vol. 46, no. 5

Mid-Atlantic Golf Course Superintendents Newsletter

Maryland Turfgrass Field Day Promises a Full Day of Informative Activities

The MAAGCS July meeting will be the Maryland Turfgrass Research Field Day/Equipment and Products Exhibit will be held on **Wednesday, July 13, 1994**. The field day is conducted at the University of Maryland Turfgrass Research and Education Facility on Cherry Hill and Gracefield Road, between Rt. 29 and Rt. 212, near Beltsville. Registration is \$15, which includes lunch, and begins at 8:00 a.m. Equipment and products will be on display all morning. At 12:00 p.m. a beef/ham lunch will be served at the farm. Refreshments will be provided at the conclusion (about 4:00 p.m.) of the research tour. This education program meets **Maryland and D.C. requirements for recertification of licensed pesticide applicators**. There is no preregistration. Exhibitors please call Tony Nash or John Krouse (301-572-7247) to confirm your participation.

Some Tour Stops

- Variety Evaluations
- Wildflower Evaluations
- Disease, Weed and Insect IPM
- Herbicides for Crabgrass and Goosegrass Control
- Update on Disease Control
- Predictive Models for Brown Patch and Crabgrass
- Fertility Studies
- Mowing Management
- Low Maintenance Grasses
- Beneficial Insects in Turfgrasses

Schedule of Events

8 - 9:30 a.m. — Registration is \$15 per person and includes lunch. Exhibits open.

9:30 - noon — Tour of Research Fields Plots

- High and Low Maintenance Kentucky Bluegrass Cultivar (IPM)
- Fine Leaf Fescue and Tall Fescue Cultivar Evaluations (IPM)
- Zoysiagrass and Bermudagrass Cultivar Evaluations (IPM)
- Forecasting Crabgrass Seed Germination
- Crabgrass Control Evaluations with New and Labeled Herbicides
 - November application of preemergence herbicides
 - April application of pre-emergence herbicides
- Pre- and postemergence goosegrass control
- Evaluation of Low Maintenance Fescues without fertilizer and herbicides (IPM)

Noon-1:30 P.M. — Lunch and Official Welcome

1:30-4 p.m.

- Herbicide and Fertilizer Interaction on a Bentgrass Green
- Bentgrass Response to P and Micronutrients
- Natural Organic Fertilizer Evaluation

- Perennial Ryegrass and Bentgrass Cultivar Evaluations for Fairway Use
- Fungicides for Summer Patch, Brown Patch and Pythium Blight Control
- Update on Pesticide Fate Studies
- Rooting of Kentucky Bluegrass and Tall Fescue as influenced by N, P and mowing
- Wildflower Performance Trials
- Update on Insect Pest Management
- Review of Pesticide Use and Storage Laws in Maryland and Washington, D.C.

4 p.m. — Refreshments

Directions: From I-95 take Calverton Exit. Take Powdermill Rd. to Cherry Hill Rd. Turn right. From I-495 Take Rt. 29 North. Go approximately 5 miles to Randolph/Cherry Hill Rd. Turn right.

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MAAGCS Newsletter

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Editors:

Betty C. Ford, 301-384-9666;
fax: 301-384-4683; Marilyn
Dorfman, 410-730-5877

Advertising: Steve Cohoon
703-554-2915; fax 703-554-2919

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PRESIDENT'S MESSAGE

Due to the dateline schedule of the newsletter, I am unable to report on the June meeting. However, I can thank Tom Knoll and the staff at Chantilly National for hosting the MAAGCS.



At this time, the Long Range Planning Committee, headed by Mike Gilmore, is stepping up its efforts to procure a management company to handle the day-to-day affairs of the Mid-Atlantic. Several companies have detailed how they can best assist us. In the coming months interviews will determine the best course of action for an association of our size.

The government Relations Committee has initiated steps to hire a lobbyist for the 1995 legislative season. Media frenzy on golf course pesticide use has continued at an alarming rate. Call me if you need more information. The Maryland Department of Agriculture is under heavy pressure from

environmental activists to license all golf course spray technicians ASAP. In addition, at the most recent Governor's Pesticide Council Meeting, both the Council and the MDA were criticized by activists for not supporting the "reporting of golf course pesticide and nutrient use" bills during hearings at the 1994 legislative sessions. Look for much more about this topic in media ink. It is not too early to discuss these issues with your green chairman, club president or other club official.

If you have a friend who did not receive a newsletter or meeting notice, perhaps their dues payment is the answer! As of this writing, the number delinquent is more than 60 (sixty). Call Bill Shirk to confirm intentions for 1995.

The next meeting will be the 1994 Maryland Turfgrass Research Field Day and Exhibition. For those certified applicators in need of recertification, this meeting will meet MDA as well as D.C. Department of Consumer and Regulatory Affairs requirements. The field day will acquaint you with information being developed as a result of research the turfgrass industry requests and contributes to. Mark your calendars for Wednesday July 13 to update yourself on chemicals, equipment, grass varieties, or have your problems diagnosed or questions answered. Although there will be no golf played at this meeting, it promises to be an enjoyable and educational day.

Lou Rudinski, President



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Don't Forget!

July's meeting will be at Maryland Turfgrass Field Day and Products Exhibition on Wednesday, July 13. Directions on page 1

GOLF NOTES

Even though the heat and humidity were at full boil at our June meeting, we had 63 players in the tournament and a few additional players as well. Many thanks to Tom Knoll and his staff at Chantilly National Golf and Country Club. The course was in terrific shape and anyone who did not play missed a real treat.

Winners for the day were:

Gross: 1st place — Ron Hawkins; 2nd place — Bill Shirk; 3rd place — Jim McHenry; 4th place — Greg Rosenthal; 5th place — Ed Porterfield.

Net: 1st place — Jeff Miskin; 2nd place — Archie Hall; 3rd place — Lester Tanner; 4th place — Ed Gasper; 5th place — Corey Haney

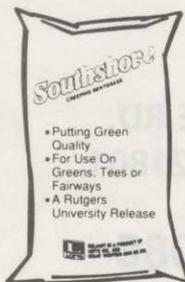
Long Drive (Egypt Farms) — Ron Hawkins; **Closest to Pin** (Pro Lawn) — Keith Pitchford; **Closest to Pin** (Turf Seed) — Bernie Beavan; **Closest to Pin** (G.L. Cornell) — Sean Remington; **Closest to Pin** (Harford Minerals) — Mike Gilmore

There is no scheduled event for July due to the University of Maryland Field Days. Player of the Year points update will appear next month.

Jim McHenry, Golf Chairman

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COHOON'S CORNER

I couldn't help but notice how many articles are being published in the local and even national newspapers, concerning the state of the golf course. I've seen everything from complaints about the goose population, to how courses are toxic waste dumps (I still don't understand how these two problems coexist.) We've even had articles which address the terrible turf losses due to the brutal winter, and another that states superintendents better keep current on their life insurance payments. The list goes on and on, but the one thing all of these articles have in common is that they are read by your members or golfing public. Rest assured that when these individuals come into close range, they are going to ask you about what the read. Will you be ready for them?

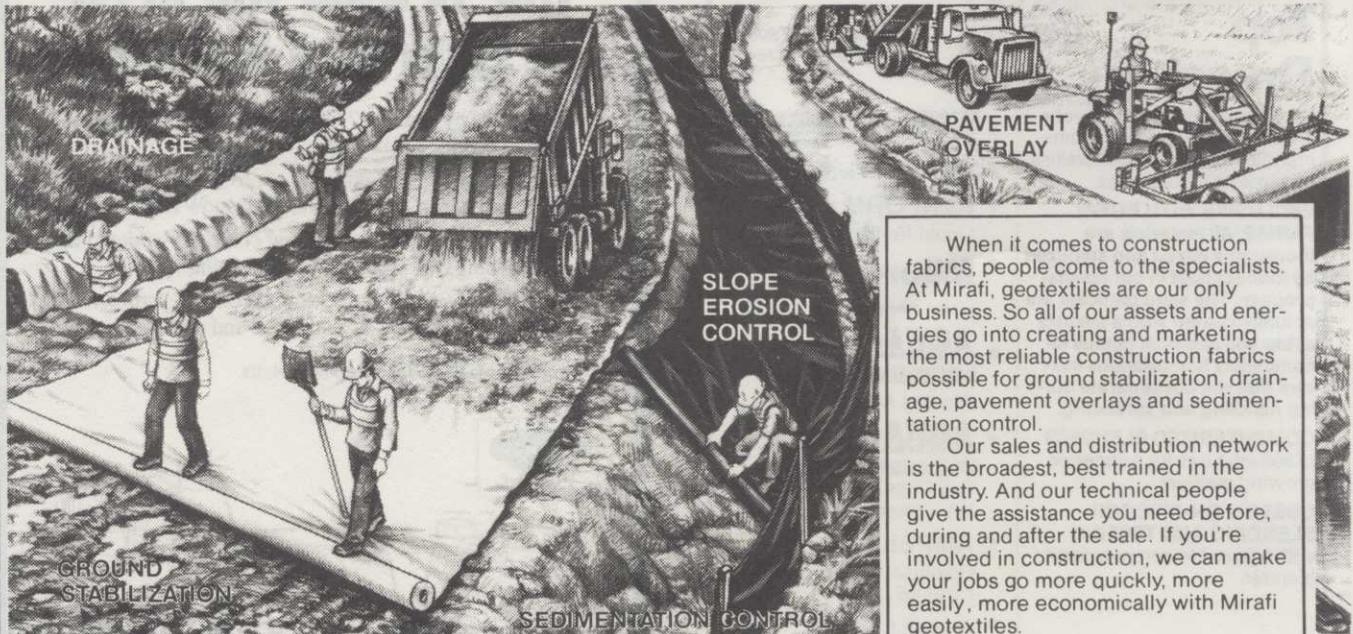
It is important, as professionals, to keep abreast of the information being disseminated concerning our livelihood. By examining the same information that our members do, we are better able to understand how their viewpoints were formed. Only after



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More and more frequently we superintendents will find ourselves in the public eye, and the better prepared we are individually, the better our profession looks collectively. Remember to stay informed on issues and communicate them with your members. It helps us all.



The *Journal of Irreproducible Results* recently reported the discovery of a new element. Unlike any other element, however, it has no electrons and no protons. Its nucleus has only one neutron. This neutron, though, is surrounded by four assistant neutrons which are, in turn, orbited by 40 deputy assistant neutrons. Little else is known about the new element except that it has the remarkable effect of slowing down every process or project with which it comes in contact. It is distributed throughout the planet, but concentrated in capital cities. It has a half life of three years, after which it reorganizes.



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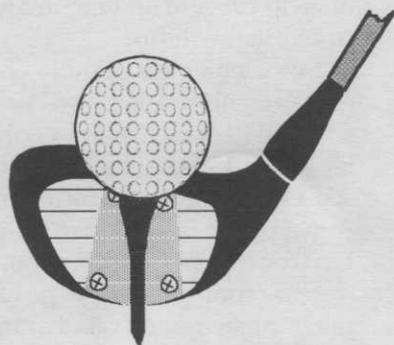
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How to Avoid a Tangle with Rabid Wildlife on Your Golf Course

Rabies is of growing concern. In the past two years hundreds of animals have tested positive for the deadly disease, and numerous residents have fallen prey to rabid animal attacks. On golf courses, where wildlife abounds, rabid animals can pose a threat to unsuspecting golfers and crew members.

One of the first steps in protecting staff and membership from this potentially life-threatening virus is education. Here are the basics.

What is rabies? Rabies is a virus that causes inflammation of the brain and is almost always fatal once symptoms develop. Present primarily in saliva, the virus is transmitted through a bite or scratch from an infected animal. People cannot get rabies by petting an animal or even by getting rabies-contaminated saliva on their skin unless it comes in contact with a recent wound or break in the skin or a mucous membrane.

The number-one carrier of rabies in our area is the raccoon, followed by skunks, woodchucks, foxes, and bats. Although any animal is susceptible to rabies, it is unusual to find it in small rodents. If they are bitten by another animal, they usually don't survive to pass the virus along.

Tip-offs to trouble. Watch for nocturnal animals roaming the course during the day. Keep in mind, though, that they sometimes appear in the daytime to hunt food for their young.

If, however, an animal seems uncharacteristically tame or friendly, shows signs of paralysis—particularly of the hindquar-

ters and throat, walks in circles, falls over, has convulsions, or attacks without provocation, chances are you've come face-to-face with a rabid animal.

Discouraging wildlife from taking up residence in public areas. Prevention is the best medicine. In this case, that means discouraging wildlife from nesting in public places.

- ✓ Be sure maintenance buildings are secure from wildlife looking for refuge. You wouldn't want to suffer a surprise attack when entering one.

- ✓ Suggest that any openings in the clubhouse attic, basement, or porches be sealed and that chimneys be capped with screens. Chimneys are among raccoons' favorite den sites.

- ✓ Keep dumpster areas clear of garbage, and be sure lids and doors are always kept closed.

How to treat animal bites.

Anyone bitten or scratched by an animal on the course should:

- ✓ Learn as much as they can about the animal. If it's a dog or cat with an owner, get the name and address.

Even if the animal's been vaccinated, it will have to be observed for 10 days to see if rabies symptoms develop. On rare occasions, the vaccine does not protect the animal.

If the animal is wild or stray, be sure to note any features that will allow later identification.

Better—though difficult—capture or kill the animal without damaging its head where the virus is highly concentrated. Should you choose the latter, refrigerate the animal as soon as possible, then call animal control or police.

- ✓ Wash the wound thoroughly with soap and water.

- ✓ Seek medical attention immediately. A physician or emergency room will know whether rabies postexposure treatment is necessary.

Fortunately, rabies vaccinations are not as painful as they used to be since they're no longer given in the stomach. The new vaccine, used extensively over the past 10 years, is safer and more effective than the original.

- ✓ Report the incident to the local health department.

If you find a dead animal on your course, use extreme care when handling the carcasses.

Although the virus dies after the animal does, the time varies greatly with humidity and air temperature. To be safe:

- ✓ Never handle carcasses with bare hands. Use shovels or disposable gloves.

- ✓ Place the carcass in double garbage bags, and incinerate or bury it in a hole at least three feet deep to prevent other animals from digging it up.

- ✓ Clean tools or other contaminated surfaces with a solution of one part household bleach and 20 parts water.

For additional information, contact your State Department of Environmental Conservation.

To report possible exposure to rabies or suspected rabid animal sightings, call your health department.

Advice about animal bites and rabies diagnosis is available from your State Department of Health.

This article adopted from one in Tee to Green, newsletter of MetGCSA.

Nutrient Demands of Turfgrass

Dr. Wayne R. Kussow, Department of Soil Science, University of Wisconsin-Madison

Most who completed their education even five years ago probably believe that plant uptake of nutrients is in direct proportion to the amount applied as fertilizer or is available in soil. We now know that much of the time this is not true. A strong relationship between the supply of a particular nutrient in the turfgrass rootzone and the quantity found in the plant arises only when the supply of that nutrient is growth limiting. The reason for this is fundamental. Recent research clearly demonstrates that plant themselves have internal mechanisms whereby they are able to control nutrient absorption according to their

needs rather than according to how much is supplied to the roots. Nutrient deficiency arises only when plant demand exceeds soil supply.

In the absence of temperature or moisture limitations on plant growth turfgrass nutrient demand is directly linked to nitrogen supply. The reason for this is the simple fact that today's nitrogen application rates are but one-third to one-half the amounts required to obtain maximum biomass production. In other words, turfgrass is managed in a near-continual state of nitrogen deficiency. Exceptions to this probably occur only during the first few hours or days after soluble fertilizer nitrogen application.

Because turfgrass growth is so often limited by nitrogen supply, plant needs for other nutrients are largely determined by the nitro-

gen status of the plant. Stated differently, nitrogen supply has strong regulatory action on turfgrass needs for other nutrients. Nutrient demand is what controls to a large degree plant uptake of these nutrients. Exactly how this control arises is not known. It relates to overall growth rate, but probably relies as well on levels of the nutrient and different organic compounds within plant roots and shoots and on some type of messenger compounds that relay nutrient demands to roots. Hormones produced in the shoots are often thought to be the messenger compounds through which shoots convey to roots the need to absorb more of a particular nutrient.

The degree to which nutrient demand regulates turfgrass uptake of nutrients varies somewhat with the nutrient in

See Nutrient, page 8

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Nutrient, from page 7

question. Phosphorus uptake appears to be closely regulated by nutrient demand while potassium often enters plants in excess of that actually required for growth. The same probably holds true for nutrients such as manganese, copper, zinc and boron that can accumulate to the point of being toxic.

Given that we now manage turfgrass in a way such that nitrogen is nearly continuously deficient has several important consequences. One is that nitrogen demand is almost always high. As a result, nitrate and ammonium ions in the rootzone are quickly absorbed. In fact, research has shown that if nitrate is injected into the rootzone of actively growing turfgrass, it virtually disappears with 24 to 48 hours

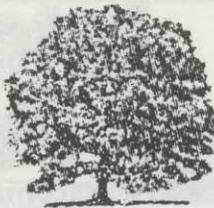
due to very rapid absorption by the grass roots and soil microorganisms. This, then, accounts for the fact that nitrate leaching from turfgrass is typically far less than from other crops where nitrogen fertilization rates are designed to achieve maximum biomass production by avoiding nitrogen deficits.

A second important consequence is that what constitute adequate soil test levels of nutrients other than nitrogen are directly dependent on the rate and frequency of fertilizer nitrogen applied. The majority of the research done to establish what are low, medium, sufficient or adequate, high and excessive soil tests is more than 20 years old and was conducted in an era when nitrogen rates for turf were considerably higher than today. This means that our interpreta-

tions of soil tests are likely to be in error. It is quite possible that what was found, for example, to be a high soil test 20 to 30 years ago is in reality excessive for today's turfgrass. The net result is that as a general rule, we're applying more and larger amounts of nutrients to turfgrass than are actually necessary.

Finally, let's recognize the strong control plants exercise over nutrient uptake. Putting more nutrient into the rootzone than the turfgrass plant needs and will utilize is wasteful and irresponsible. In many places healthy turf can be grown for a year or even for several years with application of nitrogen alone. If soil tests indicate high or excessive levels of phosphorus and/or potassium, fertilizing with just nitrogen is a proper and safe management response.

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