



# TURFGRASS MATTERS

Mid-Atlantic Association of Golf Course Superintendents

July/August 1996

Volume 1, Number 3

## What Happens to Pesticides Applied to Golf Courses?

**Dr. Michael P. Kenna**

*Director, USGA Green Section Research*

**P**rotecting ground and surface water from chemical pollutants is a national initiative. The Environmental Protection Agency (EPA) estimates that 1.2 billion pounds of pesticides are sold annually in the United States. About 70 percent of the pesticides applied are used for agricultural production of food and fiber. Only a small fraction of this amount is used on golf courses. Yet, increased public concern about chemicals has drawn attention to golf because of the perception that the intense maintenance on golf courses creates the potential for environmental contamination.

In the late 1980's, golf was faced with a dilemma. On one hand, regulatory agencies responding to public concern routinely initiated environmental monitoring programs of ground and surface water. On the other hand, very little public information was available on the behavior and fate of pesticides and fertilizers applied to turfgrass. Probing, sometimes over-zealous federal and state regulators looking for non-point source pollutants raised concerns about a recreational game that had relied on the integrity of chemical companies and the EPA to provide products and guidelines that protect the environment. There were lots of questions but few answers.

The game of golf needed answers to environmental questions, and the USGA wanted these answers based on scientific facts, not emotions. In 1991 the USGA initiated a three-year study

of the fate of pesticides and fertilizers applied under golf course conditions. This article first briefly describes what is known about the fate of chemicals used on golf courses and provides some supporting documentation to help choose a pesticide. Highlights of the research projects then are summarized, but the articles should be read to learn more about the particulars of each research project.

### THE FATE OF CHEMICALS APPLIED TO GOLF COURSES

Do golf courses pollute the environment? No, they do not. At least not to the extent that critics state in undocumented media hype. Golf course superintendents apply pesticides and fertilizers to the course, and depending on an array of processes, these chemicals break down into by-products that are biologically inactive.

In general, there are six processes that influence the fate of chemical products applied to golf courses.

- Solubilization by water.
- Sorption by soil mineral and organic matter.
- Degradation by soil micro-organisms.
- Chemical degradation and photo-decomposition.
- Volatilization and evaporation.
- Plant uptake.

The relative importance of each process is controlled by the chemistry of the pesticide or fertilizer and environmental variables such as temperature, water content, and soil type (See figure 1).

### Solubility

The extent to which a chemical will dissolve in a liquid is referred to as solubility. Although water solubility is usually a good indicator of the mobil-

*continued on page 5*



**Glenn Smickley, CGCS and Cary Sciorra take the 1996 Superintendent-Pro Tournament honors back with them to the Robert Trent Jones Golf Club.**

*Published by the  
Mid-Atlantic Association of  
Golf Course Superintendents*





## MAAGCS Board of Directors

### Officers

#### President

Bill Shirk, CGCS  
Queenstown Harbor Golf Links  
(410) 827-7518

#### Vice President

Dean Graves  
Bethesda Country Club  
(301) 365-0100

#### Treasurer

Walter Montross, CGCS  
Westwood Country Club  
(703) 281-1939

#### Secretary

Mike Gilmore  
Turf Valley Resort & CC  
(410) 465-1500, ext 765

#### Past President

Scott Wagner  
Leisure World Golf Club  
(301) 598-1580

### Directors

#### Communication

Chris Ayers  
Lakewood Country Club  
(301) 762-0570

#### Social & Benevolence

Gordon Caldwell, CGCS  
Green Spring Valley Hunt Club  
(410) 363-2248

#### Golf

James McHenry  
Caroline Country Club  
(410) 479-0666

#### Membership

Gregg Rosenthal, CGCS  
Timbers at Troy Golf Course  
(410) 313-4960

#### Education

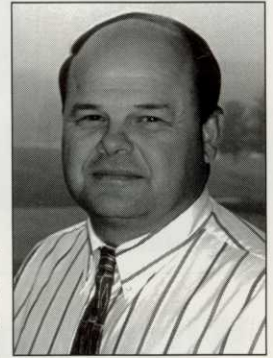
Sean Remington  
Chevy Chase Club  
(301) 656-6323

#### Finance

Nick Vance, CGCS  
Rattlewood Golf Club  
(301) 831-0498

## President's Message

Bill Shirk, CGCS



Well, here it is! The last week of May and what a difference a year makes. Nineteen ninety-five was hot and dry and to-date, 1996 has been cool and wet! Is it possible that we won't need our irrigation systems this year? Fat chance!!!

I am always very thankful for what I have, who I know, what I am able to do, and many other things, so that's why I usually start this message with a few thank you's. Again, I would like to thank both my assistants, John Stern and Steve Raube, along with the entire staff at Queenstown Harbor Golf Links for their outstanding effort in preparing for our Superintendent- Pro Tournament. Even the weatherman gave us four dry days to prepare and just enough time to finish play. I also would like to thank our June host, Gerry Hasbargen and the entire staff at Prospect Bay Country Club for their fine efforts.

I would like to finish this message with an update on the BOD's work almost half way through 1996. Our first two board meetings averaged four hours and our May board meeting lasted one and one-half hours, which indicates to me that things are

very organized and running quite smoothly. Financially, our association is in very stable condition and our money is being managed very well. All of our paperwork on affiliation has been completed and sent to GCSAA. Our monthly meetings, even without the help of the weather, are having record attendance. This is in part due to the good educational speakers and the support each member is giving our association. Our Newsletter continues to improve with every issue and your comments can only help support or improve its efforts. In short, due to the entire BOD's team effort, our association has completely recovered from the management problems of last year. Any concerns or comments about our association may be directed to any director, and I assure you they will be addressed,

Lastly, I would encourage and invite every member to attend each monthly membership meeting. Among the MAAGCS greatest strengths are the fellowship and knowledge that are shared at these meetings. ■

### Mid Atlantic Association of Golf Course Superintendents

P.O. Box 4465  
Lutherville, MD 21094 4465

For Message/Fax:

(800) 726-6501

or

(410) 825-4653

For Newsletter Questions or

Comments Contact:

**TURFGRASS MATTERS**

c/o Chris Ayers

Lakewood Country Club

13901 Glen Mill Road

### TURFGRASS MATTERS

#### Committee

Chris Ayers

Editor

Dean Graves

R. Tucker Mostrom

Bruce Cadenelli

Kevin Pryseski

Doug Fleming

Lentz Wheeler

## Superintendent's View

**Dean M. Graves**



r. Chris Ayers, Communications Director, asked me to write this article with some perspective on the ways Superintendents make purchasing decisions. I have learned that no two of us approaches this process the same way. My intent was to discuss purchase protocol with individuals representing different segments of the golf course industry and to present you with their points of consensus as well as any contrasting viewpoints.

The lucky individuals were; Mr. Andrew Sheehan, representing the private club that is privately owned, Mr. Louis Rudinsky, depicting the municipal course operated by the public [government], Mr. Mike Legere, portraying the management company segment, Mr. William Shirk, personifying the public course owned by private business, and myself, describing the private club owned by its members.

**Planning**  
Everyone prioritizes his particular needs and then presents this information in writing to his respective superiors. What happens after that point is as variable as the weather. Mr. Rudinsky explained that his requests go to four different branches of the county government. At any of these approval stages monies may be reduced for what ever reason. Mr. Shirk expressed that usually his requirements were approved with minimal justification. As a consensus, if the facility did well financially it was most likely that the request would be looked at more favorably.

How do you decide which equipment is purchased," brought out other interesting thoughts. Mr. Sheehan simply rotates out the old to be replaced by newer and similar equipment. The decision for replacement is discussed with his mechanic, Pat, and his able staff. By evaluating this information Andy feels, I can make the best decision for all concerned.

How newest equipment was discovered and evaluated is fairly consistent throughout the participating professionals. When it came to gathering this information the International GCSAA Trade Show was by far utilized the most. The consensus went like this:

Area of Interest	New Equipment	Replacement Equipment
International GCSAA Conference	1	3
Trade Magazines	2	4
Word-of-mouth	3	1
On Course Demonstrations	3	2

Information gained at "the National" is most useful for evaluating equipment just introduced, while personal experiences and dealer demonstrations ("demo's") prove most telling in gauging equipment that has been on the market awhile.

### Negotiating

Negotiating consensus came out the same as if we were purchasing a used car. Our opinions were mixed, some of us liked the challenge of negotiating and others simply say "Give me the best price."

*Continued on page 4*

Sixty years after our doors first opened we still live by one rule:  
"Sell the finest equipment made and back it up with the best parts and service support possible."

This year we celebrate Jacobsen's Diamond Anniversary. With new products like the Greens King V and the second generation Tri King 1900 series, Jacobsen has listened carefully to what you said you needed in performance and



comfort. Whatever your challenge on the golf course, we have the experience and products to help you do your job better, faster, and easier.

We thank you for making sixty years of growth possible and promise to keep our pledge to you.

Best wishes for 1996 from everyone at G.L. Cornell.

1-800-492-1373  
1-301-948-2000

**JACOBSEN TEXTRON**  
Jacobsen Division of Textron Inc.

## SUPERINTENDENT PROFILE

### Our Host for the July Meeting: *Lentz Wheeler* of Hidden Creek Country Club



Lentz Wheeler, of Hidden Creek Country Club, has made grooming the land his life for over two decades. He graduated from the University of Tennessee (Go Volunteers!) in 1979 as a Bachelor of Science in Ornamental Horticulture and

Landscape Design. He has been serving the northern Virginia golf industry ever since. He apprenticed under Bill Brock for the first year out of college as the assistant superintendent of the Reston Golf Course. He took over for Bill and ran the Reston course until 1987. Lentz spent the next two years, until he moved exclusively to Hidden Creek C.C. (Reston North Course) in 1989, overseeing both Reston courses. He has kept a steady hand on the tiller at Hidden Creek ever since.

Remarkably, Lentz managed to get married and have two wonderful children in the interim. He wed his lovely wife, Jane, almost twelve years ago, while heading the Reston G.C. Greens Department. His oldest, David, came along just after Lentz relegated himself to superintending a single golf course. Katie, his youngest, is just three years old and the apple of her father's eye. Jane, an educator by background and training, now superintends her own very active crew—home daycare. Lentz values his sports, whether on the links, the court, the track, or the couch (Rabid Tennessee football fan). His most challenging, as well as most rewarding, sport remains the balancing act that we all face between the pressures of the turf industry and the everyday details of bringing up another generation of golf course aficionados. ■

## Superintendent's View

*Continued from page 3*

Mr. Legere does not have any negotiating with his national accounts. The price is set nationally and that is the price he pays. He does have a checks and balances system in place. Mike simply, "calls his fellow superintendents with Kemper Sports Management" to check consistency. Another interesting fact with Kemper is they do not purchase any equipment, they totally lease everything

When asked to rank service, price, and compatibility to their expectations the group was very consistent. Service was by far the most important. We realize the equipment will eventually need repairing and it is of utmost importance to have it completed in a timely fashion. Compatibility is second with influencing our decision. With consideration to the mechanic and staff, it is vitally important we keep our equipment manufactures consistent and not change unless their is a huge gap in pricing or equipment quality.

Pricing was considered a distant third and is considered a minor part of the formula. I believe that this only if we feel we are getting a good value for the money. When researching equipment do you honestly feel that there are really many poor pieces of equipment sold by our local distributors? I feel, "you cannot go wrong with the quality of equipment produced today and service is of primary importance when deciding on anything."

Evaluation	Rating
Service	1
Compatibility with present equipment	2
Price	3

#### In conclusion:

In conclusion a few interesting points were discovered.

1. It is simply amazing how variable the five of our needs were. We have a better realization of how difficult it must be when a distributor tries to customize each proposal to their interested customer. How do they keep all of our particular needs organized? Good luck!

2. Financing was a topic that was discussed essentially by accident but provoked lengthy review. Basically we are all running businesses. We can become more creative and dynamic with the monies we have to spend. We owe it to the facility to do so. With margins of profit and budgets being scrutinized as they are we invite more creative financing. think with this season starting so slowly and revenues being greatly reduced this is even more essential especially for daily fee courses. ■

Since 1928



# fisher & son company, inc.

**Distributors for:**

- Turf & Horticultural Protectants
- Fertilizers
- Seed & Soil Amendments
- Top Dressings

THE "GREEN INDUSTRY" SUPPLIER

*Meeting the Needs of Turf Professionals*

237 E. KING ST. • MALVERN, PA 19355 • (800) 262-2127  
Represented in the M.A.A.G.C.S. Region by Ted Huhn • 800-945-9894

## Pesticides

*Continued from page 1*

ity of a pesticide in soils, it is not necessarily the best criterium. In addition to pesticide solubility, the pesticide's affinity to adhere to soils or sorption must be considered.

### Sorption

The tendency of a pesticide to leach or run off is strongly dependent upon the interaction of the pesticide with solids within the soil. The word sorption is a term that includes the process of adsorption and absorption. Adsorption refers to the binding of a pesticide to the surface of a soil particle. Absorption implies that the pesticide penetrates into a soil particle. The adsorbed or absorbed pesticide is often referred to as bound residue and is generally unavailable for microbial degradation or pest control.

Factors that contribute to sorption of pesticides on soil materials include: a) chemical and physical characteristics of the pesticide; b) soil

composition; and c) the nature of the soil solution. In general, sandy soils offer little in the way of sorptive surfaces. Soils containing greater amounts of silt, clay and organic matter provides a richly sorptive environment for pesticides.

Adsorption of pesticides is affected by the partition coefficient which is reported as  $K_d$  or, more accurately, as  $K_{oc}$ . For example, a  $K_{oc}$  of less than 300 to 500 is considered low.

### Microbial Degradation

Pesticides are broken down by microorganisms in the soil in a series of steps that eventually lead to the production of  $CO_2$  (carbon dioxide),  $H_2O$  (water) and some inorganic products (i.e., nitrogen, phosphorus, sulfur, etc.). Microbial degradation may be either direct or indirect. Some pesticides are directly utilized as a food source by microorganisms. In most cases, though, indirect microbial degradation of pesticides occurs though passive consumption along with other food sources in the soil.

Regardless, microbial degradation is a biological process whereby microorganisms transform the original compound into one or more new compounds with different chemical and physical properties that behave differently in the environment.

Degradation rates are influenced by factors such as: pesticide concentration, temperature, soil water content, pH, oxygen status, prior pesticide use, soil fertility, and microbial populations. These factors change dramatically with soil depth, and microbial degradation is greatly reduced as pesticides migrate below the soil surface (see Figure 2).

Persistence of a pesticide is expressed as the term half-life ( $DT_{50}$ ), which is defined as the time required for 50 percent of the original pesticide to break down into other products. Half-life values are commonly determined in the laboratory under uniform conditions. On the golf course, soil temperature, organic carbon and

*continued on page 6*

GCSAA Member

MAAGCS Member

# CHESAPEAKE

## Environmental Management, Inc.

*'Science in Harmony with Nature'*

### ✓ Water Resources

- \* Detailed Water-Supply Plans
- \* Irrigation Pond Design & Siting
- \* Well Location & Development
- \* Pond Water-Quality Assessments
- \* Permitting & Expert Testimony

### ✓ Compliance

- \* OSHA Compliance Audits
- \* Worker Right-To-Know Plans
- \* Emergency Response Plans
- \* Community Right-To-Know Plans
- \* Staff Training & Support



### ✓ GREENMAP™

- \* Complete Course As-Built Map
- \* Construction Planning
- \* Irrigation Mapping Using GPS
- \* IPM & BMP Planning
- \* Digital, Color & Mylar Outputs

### ✓ Natural Resources

- \* Wetland Delineations
- \* Forest Conservation Plans
- \* Stream Restoration Programs
- \* Audubon Certification Plans
- \* Wildlife Habitat Assessments

Let Us Put Our Experience to Work for You

260 Gateway Dr. Suite 21-C Bel Air, MD 21014 • (410) 893-9016

National Golf Foundation Member

Audubon Society of New York Member

## Pesticides

*Continued from page 5*

moisture content change constantly. These and other factors can dramatically influence the rate of degradation. Consequently, half-life values should be considered as guidelines rather than absolute values.

### Chemical Degradation

Chemical degradation is similar to microbial degradation except that the breakdown of the pesticide into other compounds is not achieved by microbial activity. The major chemical reactions such as hydrolysis, oxidation, and reduction are the same. Photochemical degradation is a different breakdown process that can influence the fate of pesticides. It was the combination of chemical, biological, and photochemical breakdown processes under field conditions that was the focus of the USGA sponsored studies.

### Volatilization and Evaporation

Volatilization is the process by which chemicals are transformed from a solid or liquid into a gas, and is usually expressed in units of vapor pressure. Pesticide volatilization increases as the vapor pressure increases. As temperature increases, so does vapor pressure and the chance for volatilization loss. Volatilization losses generally are lower following a late afternoon or an early evening pesticide application than in the late morning or early afternoon, when temperatures are increasing. Volatilization also increases with air movement, and losses can be greater from unprotected areas than from areas with windbreaks. Immediate irrigation is usually recommended to reduce the loss of highly volatile pesticides.

### Plant Uptake

Plants can directly absorb pesticides or influence pesticide fate by altering the flow of water in the root zone. Turfgrasses with higher rates of

transpiration can reduce the leaching of water soluble pesticides. In situations where the turf is not actively growing, or where root systems are not well developed, pesticides are more likely to migrate deeper into the soil profile with percolating water.

### Good Management Can Make A Difference

A primary concern when applying pesticides is to determine if the application site is vulnerable to ground or surface water contamination. In most cases, level areas away from surface waters (rivers, lakes, or wetlands) will not be prone to pesticide runoff and if the depth to groundwater is greater than 50 feet on fine-textured soils, the chances for deep percolation of pesticides is greatly reduced. More attention to the pesticide's characteristics is needed when applications are made to sandy soils with little organic matter, or sloped areas with thin turf and low infiltration rates.

*Continued on page 10*

# TALK TO TERRA

**When you want the right products, advice and service.**



You'll find a single source for all major brands of pesticides, adjuvants, fertilizers, micronutrients, and turfseed—plus our own high-quality line of Professional Products—all at competitive prices.

You'll also find technical support, agronomic advice and information, and the most advanced fertility recommendations available. All it takes is a phone call. With a conveniently-placed warehouse in northwest Ohio, you'll have what you need, when you need it.

**Talk to Terra about  
the products, advice  
and services  
we have to offer.**



Terra International, Inc.  
Contact **Sharon Verchick** at  
(800) 762-3837  
(Warehouse)  
or  
(302) 328-7779  
(Home Office)





**LEGACY™**  
GOLF IRRIGATION

## Now There's A Third Option...

### Backed Up With 30 Years of Experience.

In the past, golf course superintendents generally got two bids when replacing an irrigation system. But now there's a new option. Legacy, with three decades of experience. Legacy has brought together the world leader in gear-drive technology and the leader in control systems and valves. This combined track record is unsurpassed for quality products and experience.

#### Century - Your Link to Legacy

Whether you're replacing just one head, an entire system or planning a new course, call a Century golf professional. With more than 30 years of experience and an impressive list of satisfied customers, Century can show you the advantages of a third option. With Legacy.

**800-347-4272**

<http://www.Rainaid.com>



**LEGACY™**  
GOLF IRRIGATION

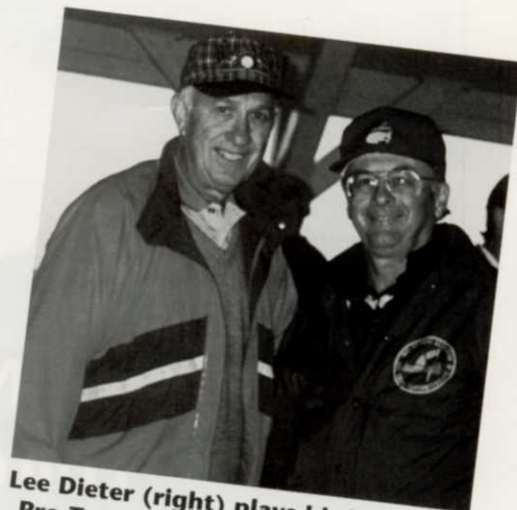
### **CENTURY RAIN AID**

Legacy available from Century Rain Aid in these Major Markets  
Delaware • Florida • Georgia • Illinois • Indiana • Kentucky  
Maryland • Michigan • Missouri • New Jersey • North Carolina  
South Carolina • Pennsylvania • Virginia • West Virginia  
Wisconsin • Washington, D.C. • Ontario, Canada

## 1996 Superintendent/Pro Tournament at Queenstown Harbor G.L.



Jim McHenry (left), Golf Director, hard at work before the tournament



Lee Dieter (right) plays his last Supt-Pro Tournament before embarking on his emeritus status, or so he says!



Mid-Atlantic superintendents hard at play



Our hosts for the 1996 S/P event, Bill Shirk, CGCS (right) and Trent Wright (left)



One of several unofficial grill oversight committees



# MAAGCS Golf Notes

**Jim McHenry,**  
Director of Golf



inally, after being snowed out of our first two golf outings, we got to play a couple of pretty good golf courses. Here are the results from the past couple of months.

### May 15 Superintendent/Pro Tournament

Many thanks to Bill Shirk, CGCS and his staff at Queenstown Harbor Golf Links for providing us an outstanding golf course for our 24th annual Superintendent/Pro tournament. The full field of 60 teams enjoyed a well conditioned course and were challenged over the newer of the courses, the Lakes Course. Thanks Bill, and congratulations on a job well done!

Congratulations to Glenn Smickley, CGCS and Cary Sciorra from Robert Trent Jones on a fine round of 61 to win the 1996 Presidents Cup and the \$750 first place prize. The other winners from the day were:

<b>Net</b>	1st	Glenn Smickley / Cary Sciorra	61
	2nd	Lentz Wheeler / Bud Lintelman	64
	3rd	Tom List / Dave Quelland	63
	4th	Chris Ayers / Steve Madsen	65
	5th	Bill Shirk / Trent Wright	66
	6th	Ed Gasper / Quinn Sullivan	66
	7th	Steve Cohoon / Ron Milner	66
	8th	Donn Dietrich / Marty Novak	66
	9th	Dean Graves / Chris Kenney	66
	10th	John Newcomb / Bill Edwards	67
<b>Gross</b>	1st	Jeff Vietmeier / Tom Hanna	68
	2nd	Paul Krout / Bob Leeman	69
	3rd	Scott Wagner / Luther Showaker	69
<b>Closest to Pin</b>		Steven Cohoon	#3
		Dave Walker	#8
		Ed Brown	#11
		Jim Napier	#17
<b>Long Drive</b>		Jim McHenry	#9
		Glenn Kelley	#13

I would also like to thank our sponsors for the day, who contributed \$2,850.00 to the tournament. Make sure you thank the following companies:

*continued on page 11*

## CRENSHAW Creeping Bentgrass

"This bentgrass provides the truest, smoothest putting surface available."



*Ken Crenshaw*

- Excellent heat resistance
- Dense, upright growth
- Produces less grain
- Bright, attractive green color

Developed and released by Texas A&M University with support from the USGA and Bentgrass Research, Inc.



**Lofts Seed Inc.**

Beltsville, MD  
(301) 937-9292  
(800) 732-3332

## Sterilized Top Dressing

especially formulated for your area to specifications recommended by leading universities and testing laboratories.

**EXCLUSIVE WITH EGYPT FARMS:** All materials are thoroughly mixed and sterilized by indirect heat in our special process. The sand particles are actually coated with a mixture of top soil and peat humus for completely homogenous mixture that will not separate during handling and spreading.

**COMPUTERIZED BLENDING** of soil mixtures for a superior growing medium.

**CUSTOM ON-SITE SOIL BLENDING AND TESTING** with a portable computerized blender.

*Green and Tee construction materials and mixes conforming to your specifications are also available.*

**IBDU<sup>®</sup> and PAR EX<sup>®</sup>**  
PROFESSIONAL PRODUCTS  
•Bunker Sand •Sphagnum Peat  
•Turf Seed

**sof'n-soil**  
LAWN & GARDEN GYPSUM

**Alitec**  
PROFILE  
TURFACE

**woodace**  
LANDSCAPE & ORNAMENTAL  
FERTILIZER

**AMPEL**  
NATURAL ORGANIC  
FERTILIZER

**R & R**  
GUARANTEED  
REPLACEMENT PARTS

**Milorganite**  
FERTILIZER

**Fuerra**

**AQUA-AJ**  
PRODUCTS

**Shaw's**  
PROFESSIONAL  
TURF FERTILIZERS

**Country Club**

**SPRING VALLEY.**  
Turf Products

**CONTECH**  
CONSTRUCTION PRODUCTS INC.  
TerraBond TerraFlow  
WINTERGREEN



**Egypt Farms**  
P.O. Box 223  
White Marsh, MD 21162  
(410) 335-3700 • (800) 899-7645

## News & Notes

### New Members

Terrence Buxton	
<i>Golf Course Specialists . . .</i>	Class F
Tommy Cowett	
<i>Ciba Turf &amp; Ornamental. . .</i>	Class F
Joe Hau	
<i>Chesapeake Env. Mgt., Inc.</i>	Class F
Mark Kuchera	
<i>Rock Creek Park GC . . . . .</i>	Class D
David Mitchell	
<i>The Morie Company . . . . .</i>	Class F
Gary Phillips	
<i>Phoenix Irrigation . . . . .</i>	Class F
Scott Roche	
<i>Timbers at Troy GC . . . . .</i>	Class D
Bert Shoenade	
<i>Mount Vernon CC . . . . .</i>	Class D
Anthony Shore	
<i>Montgy. Cnty. Rev. Auth. . .</i>	Class F
Joseph Szkalak	
<i>Balto. Muncp. Golf Corp. . .</i>	Class B
Frank Thorne	
<i>Golf Course Specialists . . .</i>	Class D
Ray Viera	
<i>Somerset GC . . . . .</i>	Class G
John Wendorf	
<i>Sandos Agro. Inc. . . . .</i>	Class F
Bill Wintz	
<i>Waynesboro CC . . . . .</i>	Class A
Ed Wright	
<i>The Wright Connection. . .</i>	Class F

### Reroutings

**David Nehila**, formerly at at Caves Valley GC, now at Jacobsen Textron, Carrollton, TX.

**Philip Plaskowitz**, formerly at Carroll Park GC, MD, now Baltimore Municipal Golf Corp., Baltimore, MD.

### Congratulations

**R. Tucker Mostrom**, of Lakewood CC, who married his fiancé, Kathryn, on June 1st.

### Get Well Wishes

**Frances Graves**, mother of Dean Graves, Superintendent of Bethesda CC, Bethesda, MD, recovering from angioplasty.

**Scott Verchick**, husband of Sharon Verchick of Terra International, recovering from a severe arminjury.

### Condolences

The friends and family of **Tom Miller**, a graduate of the University of Maryland and longtime veteran of the Mid-Atlantic area, who passed away May 14th at his home in Cincinnati. ■

## Pesticides

*Continued from page 6*

The most important thing a golf course superintendent can do when applying pesticides is to read and follow the label directions. From planning and preparation to storage and disposal, following label directions will significantly reduce the risks of contaminating our water resources. When possible, select a pesticide that poses the least threat of rapid leaching and runoff and is relatively non-persistent.

### The Rest of The Story

This is only a very brief overview of the processes that affect what happens to pesticides and nutrients in the environment. The rest of this issue of the Green Section Record is devoted to the USGA sponsored environmental research projects, which were conducted from 1991 through 1994. Compared to agricultural crops, the results not only build on what is known about pesticide and nutrient fate, and often show that turfgrass systems:

- reduce runoff
- increase adsorption on leaves, thatch and soil organic matter
- maintain high microbial and chemical degradation rates
- reduce percolation due to an extensive root system, greater
- plant uptake and high transpiration rates.

These results reinforce the view that turfgrass areas generally rank second only to undisturbed forests in their ability to prevent pesticides and nutrients from reaching ground and surface water. ■

*"Since 1950"*



# Jeter

# Paving

company inc.

**Specialists for 40 yrs.**  
**Servicing your needs**  
**in**  
**Asphalt/Sealcoating**  
**Crackfilling/Striping**

1445 Oak Ridge Place, Hagerstown, MD 21740

301-797-6941

**" A Reputation Built On Integrity "**

# Golf Notes

continued from page 9

Ace Tree Movers	Hartford Minerals	Prolawn /Bergamo
Davisson Golf	Irrigation Services	SoftSpikes
Egypt Farms	LESCO	Terra International
Finch Turf	Mid-Atlantic	Turf Equipment
Services	Equipment	& Supply
GL Cornell	O.M. Scotts	

## June 4 Challenge Cup

The MAAGCS team won the 4th Annual Challenge Cup held this year at Kennetts Square Golf and Country Club. Congratulations to team members:

<b>Gross</b>	Bill Shirk	<b>Net</b>	Nick Vance
	Scott Wagner		George Renault
	Jeff Blind		Mike Evans
	Paul Brandon		Lou Rudinski

Counting the three best scores for gross and net, they shot 468 to win by 6 strokes over Old Dominion. Scott Wagner posted the best round of the day over the challenging lay-out with a 78.

Thanks to Tim Sage, golf committee member and Challenge Cup chairman, for organizing this fine event.

## June 11 Points Tournament

Everyone must have heard what great shape Gerry Hasbargen had Prospect Bay Country Club in for this years tournament. 66 payers competed on a very fine golf course. Gerry, GREAT job! Thanks.

Winners for the day were:

<b>Gross</b>	Jim McHenry	36 pts	<b>Net</b>	Dave Rudinski	+11
	Paul Brandon	30 pts		Lee Dieter	+6
	Glenn Smickley	29 pts		John Howell	+4
	Paul Krout	29 pts		Joe Hau	+4
	Steve Cohoon	29 pts		Gerry Hasbargen	+4

<b>Closest to Pin</b>	John Newcomb	#3
	Mike Gygrynuk	#7
	Tom Wojcik	#12
	Paul Krout	#15

<b>Long Drive</b>	John Newcomb	#13
<b>Straight Drive</b>	Jim Weaver	#2

Fun prizes were also given out for the worst rounds of the day for both gross and net. (I hope they don't mind me printing this).

<b>Gross</b>	Stephanie Hau	2 pts	<b>Net</b>	Tom Tallier	-12
--------------	---------------	-------	------------	-------------	-----

Sponsors for the day were:

Finch Turf Services • Irrigation Services • Prolawn/Bergamo  
Egypt Farms • Turf Equipment & Supply • Rhone-Poulenc

**August 13 will be our picnic.** This year it will be held at Hobbits Glen Golf course with Bill Neus, CGCS acting as our host. There will be no organized golf event, however golf will be available that day to anyone wanting to play. Please contact the Pro shop at Hobbits Glen to reserve a tee time at (410) 730-5980.

Since our tournament was snowed out in April, it is being rescheduled in September at Rattlewood Golf Course. Look for details in an upcoming flyer.

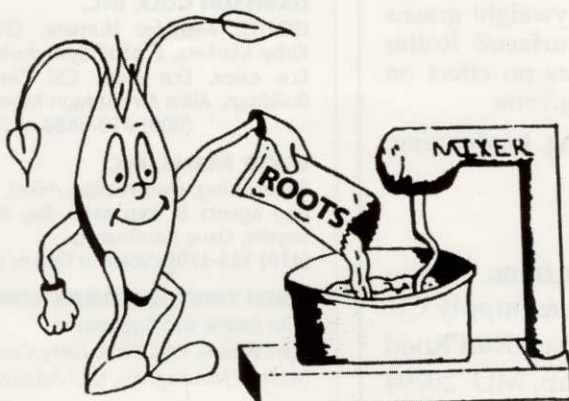
Keep stroking!!! ■

# ROOTS 1-2-3®



Now Available pre-mixed!

- Complete chelated micronutrients
- Tank mix compatibility
- Buffering to neutral
- Non-phytotoxic, non-polluting formula
- Deep, even color throughout the year
- Faster grow-in (seeding and sprigging)
- Optimum root development
- Reduction of dry spots



## NEWSOM SEED, INC.

14 DERWOOD CIRCLE  
ROCKVILLE, MD 20850

Local ..... 301-762-2096  
Nationwide ..... 800-553-2719  
FAX ..... 301-762-9544

## MID-ATLANTIC NEWSLETTER SUPPORTERS

Patrons listed on this page are supporting our Association. You are encouraged to support them.

### ACE NURSERIES/ACE TREE MOVERS

Large landscaping materials and tree moving.  
Jeff Miskin (301) 258-0008

### AULT, CLARK & ASSOCIATES, LTD

Golf Course Architectural Design &  
Consultant Services  
Brian T. Ault  
Thomas E. Clark (301) 942-0716

### B & G TENNIS SUPPLIES

Tennis nets, Tenex tapes, nails, drag brooms, hooks, line sweepers, Ty wraps, Tidy courts, Rol Dri's, Har Tru, 6 & 9 foot open mesh or closed wind screens, Herron rollers, ball barrier netting, crowd control netting.  
Grant Pensinger,  
Bob Miller (301) 653-2219

### BRANCHES TREE EXPERTS

Arboriculture and forestry consulting. Full-service tree care & consulting for golf courses. ISA certified arborists serving golf courses since 1988.  
Keith Pitchford,  
Michael Guercin (301) 589-6181

### CENTREVILLE SOD GROWERS

Bluegrass sod blends, turf type tall fescues, bentgrass.  
Sheldon & Craig Betterly (703) 361-8338

### CENTURY RAIN AID

(Century's Aqua-Flo)  
Your link to Legacy Golf. Complete irrigation systems, plus pump stations, fountains/aerators, landscape lighting, drainage, lightning protection and mor. Branches throughout the Mid-Atlantic. Call today for free on-site consultation.  
(800) 347-4272

### CHESAPEAKE ENVIRONMENTAL MANAGEMENT, INC.

An environmental firm specializing in the golf course industry. Services include pond assessment & management, groundwater development & permitting, environmental management for construction projects, Audubon certification assistance, and detailed as-built mapping.  
Stephanie Novak Hau (410) 893-9016

### CIBA TURF & CHEMICALS

Fungicides, insecticides, herbicides & plant growth regulators.  
330 Roseneath Rd., Richmond, VA 23221  
Tommy Cowett (804) 359-5546

### W.A. CLEARY CHEMICAL CORP.

Quality turf and ornamental products, including fertilizers, fungicides, herbicides, insecticides, and specialty products.  
Bob Uhler, Mike Bandy (800) 524-1662

### KEN COMINSKY

Vertidrain, Soil Reliever, Floyd-McKay Drill & Fill, Hydro-ject services. Call today to schedule your application.  
9891 Molloy Way, Warrenton, VA 22168  
Kenneth Cominsky (540) 347-4210

### DAVISSON GOLF, INC.

ISOLITE, Menefee Humate, O'Malley Mulch, Kirby Markers, EcoSoil Systems-Bioject, Eco K+, Eco calex, Eco Phos, CSI Concrete HazMat Buildings, Allen Air Cushion Mowers  
(800) 613-6888 or (410) 388-9101

### EGYPT FARMS, INC.

Topdressing, construction mixes, fertilizers, wetting agents & trap sand. Ray Bowman, Dean Snyder, Dave Cammarota  
(410) 335-3700 (Voice or Fax) or (800) 899-7645

### FINCH TURF EQUIPMENT COMPANY, INC.

John Deere Turf Equipment  
Tom Wojcik, Ed Childs, Larry Cosh, Ray Finch, Michael McLaughlin, Dan Adams  
(410) 876-2211

## Antietam Tree & Turf Irrigation Specialist

Golf Course/Commercial

J. Roger Finn (President)

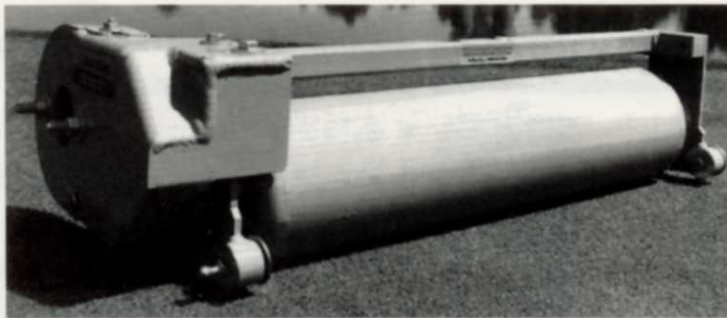
Robert B. Elder (Superintendent)

David E. Glaze (C.I.D.)

Call 1 800-368-2380



## GOOD VIBRATIONS



The True Surface® Vibratory Greens Roller was a winner at the Orlando Golf Show. Here's why:

Its patented vibrating motion gives all the benefits of heavyweight greens rollers, without the problems. At just 55 lbs, the True Surface® Roller actually weighs less than the cutting unit it replaces. Has no effect on infiltration. Causes no compaction on native soil or USGA greens.

The True Surface® Roller is ideal for grow-in, winter heaving, topdressing, aerification and tournament play.

Call us for:

- University Research Results
- Product Demonstration

(410) 799-5575

(301) 621-2975

### Available from:

Turf Equipment & Supply Co.  
8015 Dorsey Run Road  
Jessup, MD 20794

**G.L. CORNELL COMPANY**

Jacobsen & Ransomes, Rainbird Irr., Club Car.  
Larry Cornell, Bill Brown, Terry Hill, Dave Fairbanks, Bob Clements, Wayne Evans  
(301) 948-2000 or (800) 492-1373

**HARFORD INDUSTRIAL MINERAL, INC.**

TD 1000, topdressing blends, T'nG for bunkers, straight sand topdressing, CMplus and filter layer for construction. All available w/Sustane.  
Dorothy Stancill (410) 679-9191  
Represented by Prolawn Products  
Tom Malehorn (410) 876-7474 or (800) 676-8873  
Marc Bujac (301) 464-5993

**HELENA CHEMICAL COMPANY**

Your complete source for turf & ornamental products.  
Don Rossi Office: (410) 515-9660  
MD & VA Fax: (410) 515-9661

**JETER PAVING CO., INC.**

Cart/jogging paths, roadways, parking lots, Asphalt construction, repair, overlay, striping, sealcoating, and crackfill.  
Gene Snowberger (301) 797-6941

**KEEN CONSULTING, INC.**

Soil, water & tissue analysis.  
399 Pickett Lane, Camden, DE 19934  
Tony Keen, Tak Keen (302) 697-9575

**LEBANON CHEMICAL CORPORATION**

Manufacturers and formulators of Country Club Greenskeeper and Lebanon Pro Fertilizer and NX Pro Fertilizer.  
Paul Grosh (800) 233-0628  
Junior Ruckman (540) 869-2826

**LESCO, INC.**

Complete line of quality fertilizer and turf maintenance products.  
Ed Walker (Home/Fax) (410) 531-5203  
(Pager) (410) 850-1984  
Mike Eder (Home/Fax) (410) 288-2830  
(Pager) (410) 801-9230

**LOFTS SEED, INC. of MD**

Turfgrass seed  
John Brader (301) 937-9292

**LONG FENCE**

Ijamsville, MD.  
Tennis, pool, golf course fence installation and repair, plus driving range netting 25' - 50' high.  
Larry Ritter, Terrye Gamage  
(301) 428-9040 or (800) 222-9650

**MCDONALD & SONS, INC.**

Golf course construction and maintenance.  
John McDonald, Erik McDonald &  
John McDonald II (410) 799-7740

**MARVA RESOURCES, INC.**

Eagle One golf products, lumber & site furnishings, recycled plastic fencing.  
Neville Martin (703) 532-0867  
or (301) 670-6137

**MID-ATLANTIC EQUIPMENT CORP.**

E-Z Go & Yamaha turf & utility vehicles, personnel carriers, new and used golf cars.  
Rick Arnold, Gillet Boyce, Paul Tideman, and Roscoe Shupe (800) 982-3804

**NEWSOM SEED COMPANY**

Rockville, MD.  
Grass seed, new varieties, custom mixes fertilizers, and chemicals.  
Strick Newsom, Allen Bohrer  
(301) 762-2096 or (800) 553-2719

**PARKER CONSULTING**

Tissue analysis—next day service!  
2336 Windy Pines Bend, Virginia Beach, VA 23456  
Brook Parker, CGCS  
(804) 468-1113 or (804) 721-3400

**PROLAWN PRODUCTS, INC.**

Fertilizers, seed, pesticides, soil management products, custom application services by specially designed truck.  
Tom Malehorn (410) 876-7474; (800) 676-8873  
Mark Bujac (301) 464-5993; (800) 840-8081  
Chuck Bergamo (609) 692-0001; (800) 692-3303

**PRO-SEED TURF SUPPLY, INC.**

Grass seed, fertilizers, pest control products.  
Sam Kessel, Bob Butterworth, Dave Thomas, Harry Fridley, Herb Lea  
(703) 968-3535 or (800) 753-SEED (7333)


*continued on page 14*



**United Horticultural Supply.**

Brian Finger  
21300 River Road  
Poolesville, MD 20837  
301-253-5001  
Fax: 301-349-2668

**Turf and Ornamental Products  
Environmental Services  
Application Services**



**Sleepy Hollow Farm Ent.**  
**TURF MANAGEMENT**

**Take the STRESS off You and Your Turf with Floratine Products and Sleepy Hollow Turf Mngt.**

**FLORATINE**  
Innovative Plant & Soil Products

**ASTRON** ASTRON is Designed to Increase Root Mass, Length and Carbohydrate Storage. ASTRON Enhances Turf's Ability to Withstand Stress.

**Perk-Up** Perk-Up Improves Plant Respiration, Relieves Wilt and Restores Color Loss Due to High Heat and Humidity. It also Enhances Root Growth.

**Per"4"max** Per"4"max is Formulated to Increase Topical Density of Turf and Encourage Root Development in Early Spring and in Fall.

**Maxplex** Maxplex Will Decrease Nutrient Tie-Up, Reduce Compaction and Hot Spots, Helps to Manage Soil Moisture, and in Sand Reduces Leaching.

**CalpHlex** CalpHlex is The Great Balancer it Will Lower Soil Sodium, Increase Available Calcium, and Balance Calcium to Magnesium Ratios.

**Raider-TG** Raider-TG Will Dramatically Increase Plant Uptake of Systemics By Opening Plant Stomata. It Reduces Chemical Usage & Saves You Money.

**CONTACT SEAN FIFER AT 1-800-958-2913 FOR MORE INFO.**  
Sleepy Hollow Ent. is the Exclusive Distributor of Floratine Products in the Maryland, Delaware, New Jersey, Washington, D.C., and Eastern PA Areas.

## Mid-Atlantic Newsletter Supporters

Continued from page 13

### RHONE POULENC/CHIPCO

Leading manufacturer of golf course chemicals.  
Rick Fritz (410) 795-7903

### RUPPERT NURSERIES, INC.

Full line of large caliper shade & ornamental trees, specimen & evergreen varieties. Committed to quality craftsmanship & superior service w/quick turnaround on orders. Encourage nursery tours & hand-tagging. Tree spade opportunities available!  
John Hipp (301) 774-0400

### RUSSELL ROBERTS CO., INC.

Golf course design and construction  
Jack Roberts (301) 253-4066

### A.C. SCHULTES INC. of DE

Pumps, motors, wells, treatment equipment.  
P.O. Box 188, Bridgeville, DE 19933  
Bill Dewey (302) 337-8254

### A.C. SCHULTES INC. of MD

Pumps, motors, wells, treatment equipment.  
24 South River Road, Edgewater, MD 21403  
John Gilman (410) 841-6710

### SCOTTS PROTURF

Soil testing fertilizers, TGR, fungicides, herbicides, insecticides, Scotts Sierra Products, and application services.  
Rich Schneider (301) 855-1366  
Chuck Barber (804) 566-8668

### SHEMIN NURSERIES, INC.

One stop horticultural distribution centers. Trees, plant material, specimen plants, annuals, perennials, grass seed, fertilizers, chemicals, mulch, and irrigation.  
Carl Balsa (MD)(301) 421-1220  
Dan Kolb (VA)(703) 754-3729

### SLEEPY HOLLOW TURF MANAGEMENT

Floratine Innovative plant & soil products, Trion lifts, & Teejet nozzles.  
464 Ailes Road, Delta, PA 17314-8528  
Sean Fifer, Sales Consultant (800) 958-2913

### STANCILLS INC.

Special sands and blending services.  
499 Mountain Hill Rd., Perryville, MD  
Terry D. Stancill  
Phyllis Vaught (410) 939-2224

### SUMMIT HALL TURF FARM, INC.

Meyer Z-52 Zoysia (sod or plugs), Supreme Bluegrass blend (sod), Medallion Turf Type Tall Fescue blend (sod), Dominant bentgrass, Southshore bentgrass, Southshore/Crenshaw bentgrass, UHS Turfgro products, (seed, fertilizer, chemicals, & lime).  
Brian Finger, Frank Wilmot (301) 948-2900

### TEBCO IRRIGATION

Specializing in golf course irrigation. Automation, service, and repair, pump stations, trenching and root pruning.  
Todd Bahnemann (301) 579-2628

### TERRA INTERNATIONAL

Pesticides, fertilizers & seed.  
RD 10, Box 8N, W. College Ave., York, PA 17404  
Sharon Verchick (717) 792-4470

### TERRY ASPHALT

All your asphalt needs. Golf cart paths our specialty.  
P.O. Box 104, Glen Arm, MD 21057  
Al Lacy (410) 592-5343

### THE CARE OF TREES

Arboricultural services, pruning, plant healthcare, IPM, removals, stump grinding, root pruning.  
Ron Rubin, Joseph Christopher, & Jeff Aten  
(301) 948-5885 or (703) 471-1427

### TURF EQUIPMENT & SUPPLY CO., INC.

Toro equipment and irrigation. Lastec mowers, Foley & Neary grinders, Bill Goat blowers & vacs, Otterbine pond aerators, PSI pump stations, Broyhill sprayers, Terracare, Selbro blowers, TrueSurface rollers, Toro Progrid products, Toro Bio-Pro liquid nutrients and injection systems.  
Baltimore (410) 796-5575  
D.C./Northern VA (301) 621-2975

### TURF SEED, INC.

The research, production, and marketing company. Developers of turf-type perennial ryegrasses, tall fescues, fine fescues, Kentucky bluegrasses, and Bloomer wildflowers.  
Vanessa Jensen (301) 317-8962

### VIGORO INDUSTRIES, INC.

Par-Ex slow release fertilizers for turf. Woodacre slow release fertilizers for ornamentals.  
R.A. Dick Doyle (410) 357-4761

### WRIGHT CONNECTION

Stone Company specializing in walls, bridges, fountains, walks, and fireplaces.  
Ed Wright (301) 253-5645 or (800) 310-5686

### YORK DISTRIBUTORS

Fungicides, insecticides, herbicides, Anderson Premium grade fertilizers, backpack sprayers, and much, much, more.  
Tom Walsh, Harry Kenny, & Damian Verge  
(800) 235-6138 ■

## Two Excellent Sources of Potassium!

### 1-0-23 ECO K+

#### Liquid Potassium Thiosulfate Product

- ECO K+ contains potassium, which is essential for photosynthesis, stomatal opening, carbon dioxide uptake, water conservation and leaf blade strength.
- ECO K+ potassium is chloride free.
- ECO K+ is compatible with most liquid fertilizers, insecticides, fungicides, herbicides and nematocides. Check the compatibility of untried chemical mixes.

**Davisson  
Golf, Inc.**

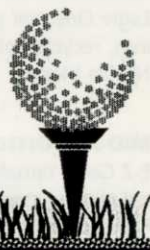
### ESS 0-2-30

#### Granular Potassium Carbonate

- Optimum (mid-range) nutrient availability to plant - a sufficient but not overwhelming dose.
- Gradual, sustained dissolution rate which provides longer nutrient availability to plant, especially in sandy soils.
- Lower salt index, significantly reducing burn potential.
- Lower net cost, resulting from moderate application requirements and high uptake value.
- Natural source, derived from sunflower seed hull ash.

**CALL: 800-631-6888**

**Balt: 410-388-9101**





# TURFGRASS MATTERS Bulletin

Mid-Atlantic Association of Golf Course Superintendents

July, 1996

## July Meeting Site: Hidden Creek Country Club

Tuesday, July 9, 1996 Host Superintendent—Lentz Wheeler

Two Man Championship  
Tee Times 10am - 12 noon  
\$12.50/Person-Cart & \$10/Person Tournament Fee  
Call Pro Shop @ (703) 437-4222 for tee time  
Lunch Available (Cash or Chargeback to Club)

Dinner: Cocktails @ 5:30 / Dinner @ 6:30  
Dress - Coat & Tie Required  
Dinner Fee: \$25.00  
Call MAAGCS @ (800) 726-6501  
by Friday, July 5th to RSVP  
Make Checks Payable to "Hidden Creek C.C."

Education: Dr. Eric Nelson from Cornell University  
"Managing Microbes for Improved Turfgrass Health"

### == Hidden Creek Country Club: A Brief History ==



Hidden Creek Country Club, owned by the Washington Hall Corporation, lies on 160 acres of rich, rolling terrain in Reston, a quieter slice of Northern Virginia. The Ed Ault designed layout takes excellent advantage of the hills, woods, and numerous creeks — Hidden Creek comes by its name honestly. Originally named the Reston North Course, Hidden Creek was built by the Gulf Oil Corporation, opening for play in 1964. The club was bought by private investors in 1983, then finally by Washington Hall in 1990. The membership is now private with 475 active full golf memberships. With a #6 Hole still regarded by many as the toughest hole in Area Code (703), Hidden Creek plays 6450 yards from the white tees, with a par 71, slope 127.

Lake Anne feeds offsite water into the golf course irrigation reservoir at #17 pond. This bevy of water is then

pumped into the new irrigation system installed just last year. Brian Ault has also been updating his father's work with some course design improvements and renovations. He designed the six newly installed tees, three fairway bunkers, the mounds at #17 green, and yes, another creek. The club's master plan calls for construction to begin this summer on a new indoor tennis facility as well as an improved parking layout.

If you believe that Lentz Wheeler and his staff have their hands full with construction, look under your feet as you play the ryegrass tees and fairways. Note the encroaching bentgrass that was first introduced last August. Imagine the carpet in the next three to five years when the bent has completely taken over. Reston may be a quiet slice of Northern Virginia, but there will be plenty of activity this summer in the corner called Hidden Creek. ■

#### Directions to Hidden Creek Country Club

Work your way to the Washington Beltway, Route 495, to the Dulles Toll Road, Route 267, in Northern Virginia. Take the toll road (Only runs outbound from Beltway) to the Reston Parkway exit and turn right at the end of the exit ramp after paying your exit toll (75¢ total each way). Temporary Road is your third light on Reston Parkway—Take it to the right. Follow Temporary Road until it deadends at North Shore Drive. Take a Left onto North Shore Drive—Hidden Creek's entrance will be a mile on your right. Remember to save 75¢ for your return trip!

**Next  
MAAGCS  
Meeting:**

**ANNUAL PICNIC**

**TUESDAY,  
August 13th**



**HOBBITS GLEN  
GOLF CLUB**



**Host:  
Bill Neus, CGCS**



**Golf:  
Annual Picnic  
Open Play**

**TURFGRASS FIELD DAY**

**Wednesday, July 17, 1996**

University of Maryland Turfgrass Research and Educational Facility  
Cherry Hill and Gracefield Roads, between Routes 29 & 212, near Beltsville

Registration Begins @ 8:30am

Free Tours of the Research Plots 9 - 3pm (Lunch is \$15.00)

**Don't Miss the Equipment and Turf Product Demonstrations!**

Call: Pete Dernoeden . . . . . (301) 405-1336

Tony Nash . . . . . (301) 572-7247

Bob Lynch . . . . . (410) 833-5497

If You Have Further Questions about the Turf Field Day

**Helping You Put  
Quality Into Play**

Since 1922, **The Toro Company** has been innovating ways to help solve your turf problems. Today, even some of those innovations are getting better.

**Toro Hydroject™**

Revolutionary greens aerator with *new Injection System* for subsurface application of wetting agents and liquid nutrients.



**Toro Motorola OSMAC®**

America's Number 1 golf irrigation system with *new Windows®-based software* for even easier operator control.



**Toro Workman™ 3000**

The new standard in utility vehicles with *12 new attachments* for greater versatility and value.



Turf Equipment & Supply Co.  
8015 Dorsey Run Road  
Jessup, MD 20795  
(410) 799-5575 OR (301) 621-2975  
FAX (410) 799-6953



*Published by the  
Mid-Atlantic Association of  
Golf Course Superintendents*

