Waas Up?? In White Grub Control

by Dr. Kevin Mathias

A combination of federal regulatory rulings and economic decisions by insecticide manufacturers has dramatically changed the landscape of white grub insecticides and control strategies. At the beginning of the 1990's white grub control insecticides consisted mainly of organophosphate and carbamate based chemistries with only a few biorational products available (Table 1). As a group, the organophosphate and carbamate insecticides, have a relatively short residual activity and are highly efficacious when used in curative control programs. Optimum results are attained if the products are applied in mid to late August or into September as white grub damage is first noticed and when the grubs are young and relatively small.

As we enter the new millennium many of the curative control products have been replaced by a group of new insecticides. These insecticides, Merit and Mach 2, offer greater applicator safety, have less adverse effect on the environment, provide excellent control (+90%) of white grubs. Merit and Mach 2 affect the early instar stages of white grubs and are much more effective in preventative than in curative control programs. A review of field evaluations for white grub control reported in Arthropod Management Tests from 1998 to 1999 demonstrated that applications of Mach 2 or Merit applied within the early June to early August time period provided excellent control (+90%), however, if these insecticide were applied from late August through September the average level of control dropped to 80%.

A recent survey conducted at the 2001 Maryland Turfgrass Conference illustrates how turfgrass managers have incorporated these new insecticides into their insect control programs (Figure 1). Merit was used by 60% of the respondents, followed by Dylox at 28%, and then Mach 2 at 19% for white grub control. Dylox, an organophosphate, was applied as a curative control for spot treatment to sites that had not been treated with Merit or Mach 2.

Table 1: White Grub Control Products

<table>
<thead>
<tr>
<th>Organophosphates</th>
<th>Carbamates</th>
<th>Biorationals</th>
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<tr>
<td>Dylox</td>
<td>Sevin</td>
<td>Milky Disease</td>
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<td>Oftanol</td>
<td>Turcam</td>
<td>Nematodes</td>
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<td>Mainstay</td>
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<td>Diazinon</td>
<td></td>
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<td>Dursban</td>
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<td>Triumph</td>
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<td>Mocap</td>
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<td>2001</td>
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<td>Dylox</td>
<td>Sevin</td>
<td>Milky Disease</td>
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<td>Diazinon*</td>
<td>Merit</td>
<td>Nematodes</td>
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<tr>
<td>Merit Mach 2</td>
<td>Mocap</td>
<td>Naturalis</td>
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<tr>
<td>Meridian*</td>
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<td></td>
</tr>
<tr>
<td>* Diazinon cannot be applied to golf course turf and sod farms</td>
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<td>** Meridian is expected to get EPA registration in 2001</td>
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Organophosphate / Carbamate Update

The ongoing review process mandated by the Food Quality and Protection Act of 1996 and under the direction of the Environmental Protection Agency (EPA) has continued to affect product choices for turfgrass insect control. Dursban's (chlorpyrifos) new turfgrass labeling removes the application of this product to residential sites and restricts applications only to golf course and industrial sites. It also limits maximum application rates of 1 lb A.I./acre per season. Though never a stellar white grub control product due to its tendency to bind to organic matter, Dursban was quite effective at the 2 lb A.I./acre rate for adult control of the black turfgrass ataenius beetle. When applied in early spring prior to egg laying, Dursban will control the adults thus preventing or reducing continued on page 4

Figure 1. Survey results demonstrating the choice of white grub control used by turfgrass professionals in Maryland for the 2000 season. The survey was conducted at the 2001 Maryland Turfgrass Conference.
President’s Message

Chris Ayers, CGCS

I want to thank all of you who took time to attend one of the four focus group meetings in January. I know how hard it can be sometimes to leave your course or business for a good portion of the day to deal with association business, but the turnout numbers indicate your interest and desire to assist the Board is strong. We, the Board appreciated the opportunity to hear your thoughts and suggestions regarding improving or changing the direction of our Association. I know my fellow Board members and I will rely heavily on the valuable opinions, constructive criticisms and words of encouragement to develop both short and long-term goals for the Association. It is my hope that we can begin reporting back to the membership some of the findings at our April 10th meeting at Beechtree GC. Our host for the April meeting is Russ Davis, a good friend of mine, who will have his course in good shape for our visit. Please mark your calendars for what I am sure will be a wonderful day north of Baltimore. I would certainly be remiss if I did not thank our focus group hosts Tom Tokarski, Rich Sweeney, Steve Nash, CGCS and Lakewood CC for providing us with meeting facilities and lunch in order to conduct our business. Thank you gentlemen for your help and support.

The Maryland Turfgrass 2001 and GCSAA hospitality suites in Timonium and Dallas respectively were extremely successful events. Both were well attended and provided an excellent opportunity to network, meet new faces and renew old acquaintances. The MTC suite was fully supported by MAAGCS. The larger, and obviously more expensive, hospitality room at the national convention was only possible with the assistance of the Eastern Shore AGCS and Nutramax Laboratories.

For the second year in a row, MAAGCS, ESAGCS and our friends at Nutramax joined together to provide you with a hospitality room at the GCSAA Conference and Show. My thanks to Tom List, CGCS, ESAGCS President and George Barger at Nutramax for helping to make the Dallas suite possible.

You can probably tell already that I am going to make it a habit to acknowledge the assistance and support we receive as an Association. Some of you may even be wondering why we need the support of neighboring Associations or companies who do business in golf course management. I can tell you from experience; the industry we are involved in is BIG and it is growing. There are constant changes in procedures, products, technologies and regulations that cause us to adapt the way we go about conducting our business. Coalition building among groups with common goals or agendas is not a bad thing when you consider “strength is in numbers.” Education, communication, research, government relations and scholarship can all benefit greatly from joining together and building working relationships. I truly do appreciate the support we receive and would encourage everyone to get involved, make a difference and support those who support you.
From the Editor’s Desk  
Paul Masimore, CGCS

It's a new year and a different editor. I have gathered some new folks for the committee to assist with finding articles for the newsletter. I would like you to know I appreciate your assistance. I have called many people asking (or pressuring you) for input with articles. Thanks to those that have submitted articles, or have assisted, in this edition and to those who have articles coming. I will be checking back with you to see how you are progressing.

Everyone should be aware that the articles leading to the Professional Development Initiative (PDI) were passed at the Conference in Dallas. If you are not aware of the changes to take place starting in 2003, you have two years to find out what you voted for. I say this, because I know some people did not take the time to look into this somewhat controversial program. I would like to say more about PDI, however, I will hold off for now. One thing members should think about though, is the voting process on issues impacting GCSAA membership standards for the future. Remember this, if you do not actually cast your own vote, that vote can come back to work against you.

For those of you who missed this year's GCSAA Conference, it truly is getting larger. It is definitely worth attending. Seminars, educational opportunities, forums, the annual meeting and the trade show are good, but one of the great aspects of the conference to me is, the opportunity to meet and talk with superintendents and industry people from other areas of the country and world. I have met superintendents at the golf tournament, conference and from other areas where I worked in the past, that top off the entire trip. The opportunity to meet with these people each year is one that I really anticipate. One does not just learn from the educational opportunities at the conference. The networking with other superintendents in the tournament, conference and industry people at the trade show, is always a very valuable experience for me. You should find a way to attend.

I hope you find an article of some interest and use to you in this edition. If you do not, remember you don’t have to be on a committee to send in suggestions or articles.

Bullets from the Boardroom  
James Halley, Secretary

- The MAAGCS Board of Directors voted to approve funding for representatives of the Maryland Student Chapter to attend the GCSAA Conference & Show in Dallas.
- Soon you will receive information from the Media/Public Relations Committee encouraging you to have the MAAGCS logo and link posted on your club or company web site.
- A letter was sent to the Virginia Turfgrass Council supporting their position concerning the list of invasive alien plant species published by the Natural Heritage Division of the Department of Conservation and Recreation (DCR).
- The Board of Directors is cautiously optimistic that the Maryland Drought Task Force recommendations, in the event of future drought situations, will be accepted by the Governor's office without changes.

2001 GCSAA Election Results

President Tommy D. Witt, CGCS  
Vice President Michael Wallace, CGCS  
Secretary/Treasurer Jon D. Maddern, CGCS  
Directors: Robert J. Maibusch, CGCS, MG  
Timothy T. O'Neill, CGCS  
Mark J. Woodward, CGCS  
Sean Hoolehan, CGCS

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Grub Control, continued from page 1

egg laying and therefore future white grub damage. Various pyrethroid insecticides such as Talstar and DeltaGard are now replacing Dursban for this use.

Turcam (bendiocarb), a carbamate insecticide, manufactured by Aventis will no longer be produced for turfgrass insect control in 2001. This was a voluntary decision by the manufacturer based on economic considerations. However, current supplies of the product can be sold until the existing inventory is depleted. Diazinon is the most recent product to see future regulations affect its use in the marketplace. It will lose its labeling for all lawn and garden uses beginning in 2003 and in the mean time annual production levels will be reduced for the 2001-2002 seasons. With the impending cancellation of Diazinon only one insecticide, Dylox (trichlorfon), will provide effective curative control of white grubs.

New Product Information

A new insecticide from Syngenta is planned for introduction in 2001. The product is Meridian (thiomethoxam) and white grub evaluation studies have shown excellent efficacy when applied preventatively. Field evaluations of Meridian demonstrated excellent control (97%) when applied within the June to early August period (Table 2). However, if applied in a curative manner, late August through September, the level of control dropped to 80% for Japanese beetle, masked chafers, and oriental beetles. European chafer control showed an even greater drop when used as a preventative, 82% control, to 22% control when applied in a curative manner (Table 2).

The proposed labeling for Meridian recommends an application window for white grubs 45 days before adult flight activity to 2nd instar development with optimal timing at peak egg hatch. Additional insects for which Meridian will be labeled for include billbug larvae and fire ant control and suppression of chinch bugs and mole crickets.

The mode of action for Meridian is similar to that of Merit. It interferes with the action of acetylcholine to attach to its receptor site within the synapse area of the nerve. The term, postsynaptic acetylcholine mimics, is used to describe their activity. It is important to note that if one wants to use the new insecticides and reduce the likelihood of resistance then one will need to have Mach 2 in a rotation with Merit or Meridian.

Multiple Targeting

The possibility of controlling more than one turfgrass insect pest with these new insecticides is possible due to their long soil residual activities. For example an application of Mach 2 if timed properly could control sod webworm or cutworm larvae while continued on page 5
Grub Control, continued from page 5
also providing excellent white grub control. However for this to occur turfgrass
manager’s must be aware of the life histories of the major insect pests within their region.

At Maryland, black light trapping has been done at various golf courses since 1996. A number of turfgrass insect pests are collected and counted throughout the season and then posted on our home page (http://iaa.umd.edu/umturf/umturf.html). Adult scarab beetles such as masked chafers, the black turfgrass atenaenius beetle, the oriental beetle, June beetles, and the asiatic garden beetle along with the Lepidopteran pests such as sod webworms and black cutworms are monitored from May through August. The light trap data can provide excellent insight into the proper timing to maximize control with the new preventative insecticides. Adult sod webworm and masked chafer cumulative counts have been tabulated over the past four years (Figure 2). If Mach 2 were to be used several windows of application can be evaluated. For example, if the major goal is to control white grubs then the timing of Mach 2 could occur between mid-June to early August. However, if one wanted to control the 1st generation of sod webworm larvae and masked chafer grubs then an application timed between mid to late June would control both of these turfgrass insect pests (Figure 2). Another possible multiple targeting example is the use of Merit to control billbug larvae and white grubs by timing an application in mid to late May.

Summary
With the changing of the guard from the older broad spectrum insecticides to the newer more selective insecticides, turfgrass professionals will now see improved levels of control, greater applicator safety, and less interference of natural control. However, one major issue with the application of these new insecticides is their use in preventative control programs. If we rely too heavily on these products and apply them annually to large turfgrass sites without regards to the principles of integrated pest management then the likelihood of resistance and enhanced biodegradation of these products will occur. What we must do as turfgrass managers and researchers is to continue to improve our abilities to predict the likelihood of white grub damage. Greater emphasis on record keeping as to where and when white grub damage occurs, black light and pheromone trapping, and a better understanding of scarab (white grub) behavior are needed. Only then can we better identify high risk sites and apply judicious applications of these new insecticides.
Around the Mid-Atlantic

OLD TURK RETIRES

In the early sixty's a group of young Turf Management graduates converged on the Mid-Atlantic area. They were the new kid's on the block, as labeled by some of the Turf Magazines, “The Young Turks”. Someone had told them, "If you grow it there you could grow it ANYWHERE.” Most of the Turks have either retired or moved on to, anywhere. Dave Fairbank, one of the early sixty’s gang has retired. Dave graduated from Penn State University’s Turf Management program in 1959, and became a Golf Course Assistant Trainee in New Jersey. He came to the Mid-Atlantic area as an assistant superintendent at Argyle Country Club in 1963, then became the Golf Course Superintendent in 1964. Dave’s next challenge was Lakewood Country Club where he accepted the superintendent’s position in 1965. A lot of experience was acquired at Lakewood, including how to survive when your entire maintenance facility and equipment area goes up in flames. In 1973, Dave moved on to Army Navy Country Club in Arlington Va. as Golf Course Superintendent and Assistant General Manager. During his tenure at Army Navy, he was very active in professional turf organizations and served as president in four: The Mid-Atlantic AGCS, Greater Washington GCSA, Penn State Turfgrass Alumni Association and the Virginia Turfgrass Council. During this time period he also was part time instructor in the Turf Management Course at the Loudon Campus of Northern Virginia Community College. After sixteen years at a twenty-seven hole facility and what seemed like millions of golfers, Dave left the superintendent profession to join the G.L. Cornell company in 1989 as a Turf Equipment Sales Representative. This position gave Dave some time to enjoy visiting old friends, while continuing to meet new superintendents. For the last three years he was involved with two other company employees in developing, constructing and publishing the company web site which he now manages and will continue to do so in retirement. There will be quite a few Goose Dogs that will miss Dave’s treats. Dave and Janet have purchased a house in Woodstock Va. and look forward to the benefits that can be found in the Shenandoah Valley and Blue Ridge Mountains area. Wishing you and yours the very best in the future, and may all your putts be short ones.

Sam Kessel

Master Greenskeeper

Walter Montross, CGCS recently obtained the designation, MG (Master Greenskeeper) from the British and International Golf Greenskeepers Association.

The MG designation is similar to the GCSAA Certification Program designation, CGCS. He has been a Certified Golf Course Superintendent since 1984.

The first step for entrance into the Master Greenskeeper program is submitting an application. Once entered, there is a point earning process before moving to step two. Walter had earned over half of those points.

continued on page 11
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Focus Groups:
MAAGCS in the 21st Century

The Mid-Atlantic Board of Directors held Focus Group meetings in each of the four geographical areas of the Association during the month of January. The first meeting held on the Eastern Shore, was hosted by Tom Tokarski at Queenstown Harbor Golf Links. Chris Ayers, CGCS and Lakewood Country Club hosted the second meeting for those in Suburban Maryland. Rich Sweeney was our host for the third gathering at Bonnie View Country Club located in the Baltimore region. The last stop on this “whistle tour” was with Steve Nash, CGCS at Hidden Creek Country Club in Northern Virginia.

President Chris Ayers, CGCS began each meeting by outlining the major areas the board wished to address during the discussions: Communication, Education, Membership/Participation, Monthly Meetings and an Umbrella Association. Several questions were posed to the groups and discussion ensued. Each meeting lasted approximately two hours followed immediately by lunch. The Board of Directors is now compiling the information gathered and will report to the membership the outcomes at the April monthly chapter meeting at Beechtree Golf Club in Aberdeen, Maryland.

The Board of Directors wished to thank those members who took the time to participate and contribute to the direction the Association will take during the next few years. MAAGCS will become stronger as more valuable information and ideas are put forth by the membership. Please make plans to attend the meeting in April.

Pesticide Applicator Certification And Business Licensing Requirements
by Tom Walsh

The Maryland Department of Agriculture (MDA) is responsible for regulating the sale, use, storage and disposal of pesticides and for enforcing the Maryland Pesticide Applicators Law. MDA is responsible for establishing guidelines and requirements for the applications of pesticides, the certification of pesticide applicators and the licensing of businesses to ensure that pesticides are applied properly by competent individuals.

There are several different types of pesticide applicator certificates and licenses issued by MDA, including: private applicator certificates, pest control business licenses, pest control applicants certificates, pest control business licenses, and “not-for-hire” business licenses and pesticide applicator certificates.

A private applicator is an individual who uses a restricted use pesticide in the production of an agricultural commodity on their own or leased property, such as dairy farms, orchards, nurseries, turf farms and greenhouses. A pest control business is any business that is offering pest control services or applying general or restricted use pesticides for hire as part of a service or contract agreement.

Golf courses in Maryland that apply restricted use pesticides must possess a “not-for-hire” pesticide business license as well as a pest control applicator certificate. At least one employee of the golf course must be certified in those categories for which the golf course is licensed.

For any further clarification or questions, please contact Ed Crow at the Maryland Department of Agriculture (410-841-5710). For the purpose of this article, the laws in the state of Maryland were used as examples.

Please refer to your own state jurisdiction for laws regarding your golf course. Each surrounding state may have different requirements for compliance on golf courses.
What Are You Going To Do?

by Mark Merrick, CGCS

You are walking around the golf course on a cold frosty morning in February, when suddenly you feel shortness of breath and a little dizzy. In a few seconds it passes away, so you continue walking. All of a sudden a pain of tremendous proportion hits you in your chest and drops you to your knees. The pain is so severe that you can just about speak and you definitely can’t get to your feet. What are you going to do next?

All of my life I have been very active and hard working. I enjoy getting into the trenches and getting dirty. Walk spreading materials has always been a job that I have enjoyed. I assumed this was great exercise. Basketball and indoor soccer have been part of my adult life. All of these things gave me the false assumption that the 43-year-old person staring back at me in the mirror, still looked and functioned as a 23-year-old. Now I find myself kneeling in pain and wondering why?

I was a fortunate heart attack victim. My assistant was there, called 911 immediately and my crew carted me to the maintenance building. They deserve a lot of thanks for reacting quickly. (Apparently those once a year first aide talks with the crew really work). I was friends with the paramedics who came to pick me up and work on me. Those community functions that we are all told we need to get involved with, really paid off. I work five minutes from a major hospital. It was 8:30am and all of the doctors and nurses had shown up for work. No one was in the one and only heart operating room.

As images of family passed through my mind, I knew I was dying. How can this be happening to me? What is my family going to do? That job that you have devoted your life to, twenty-four hours a day, seven days a week now means nothing. Oxygen, aspirin, I.V., nitroglycerin and morphine are thrown at you to keep you going. You are now being prepared for major surgery. They cut the main artery in your leg, blow a balloon up in your heart, stick a screen in the artery and the pain is gone. Then they show you how old you really are and explain why. Time passes by all of us so quickly. The older you get, the more devoted to taking care of yourself you have to be. As most men do, I believed that I was indestructible. "Old age hits around 80, that’s when someone will have to take care of me". I quickly found out that I need to take care of myself and it should have started long ago! My long list of doctors started to explain it all to me, things that are so simple, all within reach and easily done. This is why I tell this story. No matter how old you are, you could be me, on the ground and wondering what you are going to do next. Do the simple things now and avoid being put at risk.

SEE A DOCTOR AT LEAST ONCE A YEAR! This is so simple and painless. Get blood work done to check for cholesterol levels and get an EKG. If your doctor does not do this, DEMAND IT BE DONE! What are you and the insurance company for? It’s your life. You and the doctor need to be more respectful of its needs. While you are there, demand that you get a sonogram of the artery.

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Heart Healthy, continued from page 9

ies in your neck. This is so simple, painless and it tells you if you are at risk for a stroke.

If you smoke cigarettes, cigars or chew, STOP! plain and simple. You are cutting off oxygen to your blood and slowly shortening your life. There are many ways and means out there to help you stop if you can't on your own. You know what they are and where to find them.

EXERCISE at least every other day for twenty to thirty minutes. Not walk spreading some fertilizer once every two weeks. Not playing an adult sport once a week. Run, fast walk, or aerobic exercise. Break a sweat and get your heart pumping for twenty to thirty minutes every other day. Look at what you are shoving into your mouth. CONCENTRATE ON LOW FAT PRODUCTS. There are so many wonderful foods out there to eat. Take the time to read the labels. You read them before spraying. Fruit, vegetables, fish, skinless chicken, rice and beans are all good for you. Frying anything is not! When you are full, stop shoveling it in your mouth. You don't need to go on some special diet plan unless you need everything written down.

STOP THE STRESS! Easily said, but not done in our jobs. There are many ways during the day to ward off the stress that produces cholesterol and high blood pressure. Walk the golf course. Chair exercises if you are in the office. Laugh it off and remember that it's only a job. When you are dead and gone, that place will still be there and only the faces will have changed.

You are walking the golf course on a cold, frosty morning in February. Suddenly you feel at ease. You smile knowing that you have control over your life and that you are doing everything that you possibly can to keep from falling on the ground and clutching your chest.

Mark Merrick, CGCS is the Golf Course Superintendent at The Elkridge Club in Baltimore, MD.

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Golf Notes

MAAGCS 2000 Player of the Year, Rick Wakefield, CGCS, won 3rd Place in the Championship Flight during the GCSAA Golf Championship in San Antonio, Texas. Other MAAGCS winners were:

- Ed Brown 3rd Gross - 1st Flight
- Sean Remington 1st Net - 6th Flight
- Dean Graves 2nd Net - 6th Flight
- Mike Evans 2nd Gross - 7th Flight
- Dan Pierson 1st Gross - 6th Flight
- Tom Tuttle 1st Gross - 6th Flight
- Paul Masimore 2nd Gross - 9th Flight
- Charles Hall 2nd Net- Super Senior

The MAAGCS Chapter Team of Dean Graves, Mike Evans, Paul Masimore, and Tim Sage placed 7th in the Net Division. One hundred and thirty three teams competed this year in San Antonio.

Two Ball Teams

Net I Rick Wakefield, CGCS
Terry Smith 7th

Net II Matthew Masemore
Matthew Fauerbach 10th

Net III Sean Remington
George Renault III, CGCS 2nd

Net IV Mike Evans
Paul Masimore, CGCS 8th

Four Ball Teams

These MAAGCS members participated on four ball teams.

Net I John Kotoski, CGCS
Richard Sweeney 2nd

Net II Matthew Masemore
Matthew Fauerbach 3rd

Net III Sean Remington
George Renault III, CGCS 6th

Net IV Tim Sage
7th

Mike Evans
Paul Masimore, CGCS 8th

Congratulations to all the winners!!
Another Top Ten Finish!
The University of Maryland Student Chapter team finished 7th for the second year in a row at the Student Turf Bowl Competition held on Friday afternoon at GCSAA’s National Convention in Dallas. The level of competition increased over the previous year, with 61 teams versus 47 teams representing turf programs from around the country. It was a great opportunity to see how we measured up to those other students in such areas as turfgrass, weed, insect and disease identification, fertilizer and pesticide calculations, cultural practices, and Latin genus and specific epithets. Dr. Mathias did a great job preparing us for the competition, and we have plans for next year to help in areas such as southern turfgrass and weed identification. We improved our score from last year by over 30 points, and hopefully have established a tradition that can build interest in the years to come! The team was made up of IAA students Steve Evans and Adam Newhart, and 4-year Natural Resource and Landscape Architecture students Cory Kaufman and Kevin Smith.

During our whirlwind three and a half-day tour, we had the opportunity to experience many activities that the GCSAA provided for the students. On Thursday, we went directly to the trade show, we attended a leadership seminar and heard a presentation by current president Tommy Witt, CGCS, and we attended the MAAGCS reception. Friday morning found us at the Innovative Superintendents Breakfast and presentation, followed by a Student Luncheon with a presentation on professionalism by Mark Esoda, CGCS. The Turf Bowl was held for 3+ hours that afternoon, and we unwound at the Maryland Alumni reception followed by mechanical bull riding by some of our team and Dr. Mathias! Saturday started with the Research Breakfast, a seminar titled “Powering Up” presented by Don Sexton, CCM, CHE, and the highlight of the day, a visit to the Texas A & M research farm and the Ranger’s Ballpark. While at the research farm, we got to see cutting edge work by Dr. Milt Engleke and his staff, which included zoysiagrass breeding. Also, a very promising study on a Texas bluegrass and Kentucky bluegrass hybrid that has tremendous drought tolerance, disease resistance, and shade tolerance.

We wish to thank the members of MAAGCS for their monetary support to get our team to Dallas and the tremendous encouragement we received from members. Even though we did not realize our goal of bringing home the Championship, our strong showing reflects favorably on the caliber of the turf and golf course management programs at the University of Maryland. The learning opportunity we received will be invaluable as we continue on our career paths. Thanks for all your support.

Steve Evans

VA Tech Finishes Fifth in Dallas
The Turfgrass Club of Virginia Tech tied for 5th with Michigan State with 217 points in the GCSAA Collegiate Turf Bowl Competition in Dallas, TX. This is the highest finish ever by Virginia Tech. The team was comprised of Turf Club President Peter Rappoccio, Alumni Chairman Dean Ratliff, Conference Chairman Kevin Fortune, and Past-President Andrew Green.

Around, continued from page 6
for his 25 years as a Golf Course Superintendent. After earning the remaining points, you are then visited by another Master Greenskeeper to evaluate your course. Terry Buchen, CGCS, MG, toured the golf course and reviewed Walter’s maintenance programs. Upon successful completion of this second step, you moved on to step three, which is a written examination.

This written portion was administered at the University of Maryland, monitored by Dr. Kevin Mathias. It is a two part, closed book exam. Three hours are allocated for each part of the exam. The first part is a series of five questions that are technical in nature and cover considerable subject matter. The second part is a case scenario, whereby you respond to a series of questions posed concerning how you would deal with a proposed case question. You write your position, then justify your reasoning. When the written examination is completed, it is then mailed back to BIGGA where it is scored by three professors. The examination is given twice a year in March and October.

It took approximately two months for BIGGA to notify Walter that he had successfully completed the program. After being notified, you are then invited to their conference for the official presentation. Now that Walter has received the MG designation, he will be required to assist with ongoing educational issues, possibly speaking at the BIGGA conference and writing articles, to maintain the MG status.

There are only twenty eight Master Greenskeepers in the world, 10 who hold both CGCS and MG status. Of these twenty eight, sixteen of them are Master Greenskeepers in the United Kingdom and two in Germany. This program has been in place since 1987. At the present time, there are approximately 125 people registered in the program.

Other accomplishments of Walter’s are his very active memberships with MAAGCS and GCSAA. He served as President of MAAGCS in 1989, 1999 and as President of the Greater Washington GCSA in 1980 and 1981. With GCSAA he has served on the following committees: Career Development, Communications, Education and Par for the Course Resource Group.

Congratulations Walter!!
First of all, I would like to thank my fellow commercial representatives for electing me to the IAC. I appreciate your confidence in my abilities and I look forward to a new challenge.

The challenge, as I see it, is the increased communication between the superintendents, their assistants and the commercial representatives. I've had the advantage of serving on the Mid-Atlantic board as a superintendent for eight years. As a superintendent, I often wondered why the different sales institutions did things the way they do. Why do they support some things and not others? I also thought it would be helpful to have commercial input to the MAAGCS Board of Directors on an ongoing basis. As a commercial representative for the last thirteen years, I'm glad I can be of help to an association that I truly enjoy, and have a vested interest in as well.

Three years ago the MAAGCS addressed this situation by forming the Industrial Advisory Committee. Dave Cammarota, Harry Fridley, and Lance Ernest were appointed to the committee for three-year terms. The MAAGCS Board directed this committee to: find ways the Class F members could help in the future direction of the Association; to bring the views and ideas of the Class F members to the attention of the Board so that they 1.) Feel they are an important part of the Association; and 2.) Feel they receive real value and benefits from their membership and support of the Association. The IAC will be comprised of MAAGCS commercial members, who assist the Board of Directors in better formulating policies as they relate to the operation of the Association.

Last fall the IAC sent a questionnaire to all Class F members. We asked for opinions, from the members, ranging from the use of nametags to how we should introduce guests. We also asked the commercial members what committees they would like to serve on. We, on the IAC, felt that our response to the first mailing was somewhat weak. We sent the same mailing again in January to those who didn't respond and received a better response. By combining the two we felt that we got excellent feedback.

All of our Class F members felt that membership in the MAAGCS was an excellent investment. Every Class F polled said they would continue to support the MAAGCS by participating in tournaments and golf outings. Likewise, most said they would continue donations that ultimately would be used for scholarship and research. These members also felt that they would expect local superintendents to support those institutions that support the MAAGCS.

We, on the IAC, are asking the general membership for their input as to how the commercial representatives can help the Association. Both the superintendents and Class F members need to communicate their wishes. Please be candid in your questions, opinions, and suggestions. Please feel free to call on any of us, anytime, with your input.

This April, I will celebrate thirty years as a member of the Mid-Atlantic. Although I'm now considered one of the "Old Guys", I pride myself in not thinking about "Old Days" and longing for how it used to be. The golf industry is changing every day. The MAAGCS is a "Professional Association" and should operate as one. Networking at monthly meetings or going on-line to work through numerous websites is a must. Classes A, B, C, and F members should work together to strengthen the MAAGCS, the superintendent's profession, and the golf industry. We Class F members want to help. We are the best conduits the superintendents have to the local and national industry changes. Tell us how we can help.

Wayne Evans
News & Notes

New Members

Class A
John Burns
Joseph Pishtey

Class B
Scott Kreger
R. Scott Parvin

Class C
Tyler Applegate
Craig Cocran
Todd Gribbling
Bryan Kelbaugh
Eric Mercer
Brent Powers
Michael Villei

Class D
Chris Ellis
Marc Olley
Robert Raley
Jed Vail
Tim Velasco

Class F
R. Brian Bartell
Edward Beidel, ASGCA
Graham Davis
Joe Herkalo
Eddie Moore
James Pippin
Jon Sewell
Steve Slominski

Re-Classifications
Bill Shirk, CGCS
Kenneth Lohr

Bert Schoenadel is now a Representative with G. L. Cornell
Kevin Smith is now a Representative for Finch Turf Equip.
Kyle Stephens is now the Assistant at Belmont Country Club
Steve Swieder is now the Superintendent at Chartwell CC
Frank Thorne is now the Assistant at Swan Point Yacht & CC
Paul Tideman is now a Representative with E-Z Go Textron
Mitch Williams is now a Representative with Lesco, Inc.

Job Well Done
Walter Montross, CGCS is now a Master Greenskeeper
Tim Norris, CGCS upon recertification

Congratulations
To Bill & Love upon the arrival of a .
To Brian & Etienne Marofsky upon the arrival of a son, Nathaniel Grant
To Michael & Tricia Peny upon the arrival of a daughter, Clarie Marie
To Jeff & Cora Tschudi upon the arrival of a daughter, Lilianna Joy

Get Well Wishes
To the father of Chris Ayers, CGCS recovering from recent surgery
To the father of Mike Evans recovering from recent surgery
To the grandmother of Jim Halley recovering from a recent illness
To Bernie Heileg recovering from recent surgery
To Kathryn Newcomb, mother of John Newcomb, recovering from surgery
To Ben Stagg recovering from recent surgery
To Domenic Cervone, son of Jim & Kelly Cervone

Condolences
To Harry Fridley, upon the passing of his step-father
To Terry Hill upon the passing of his mother
To Jeff Miskin upon the passing of his mother
Chlorothalonil Update

by Jean Scott

There has been quite a bit of confusion about the status of Daconil® and other chlorothalonil products. First a little history and then the particulars on the label changes you will see now and in the future.

The Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) was amended in 1988 and since that time the EPA has been conducting a comprehensive review of older pesticides, those registered before November 1, 1984, to consider their health and environmental effects and to make decisions about their future use. FIFRA was amended in 1996 by the Food Quality Protection Act (FQPA) and requires all pesticides meet new safety standards. This law substantially changes the way pesticides are evaluated, specifically for their health effects. The EPA must be able to conclude with “reasonable certainty” that “no harm” will come to infants, children and other sensitive individuals exposed to pesticides.

Whether or not a particular material will be discontinued or restricted depends on several factors. All pesticides must be reviewed under FQPA. Older materials are first on the list. As products come up for review the manufacturer evaluates the material to ascertain if sales of the product will justify the cost of the review. Many older materials are off patent and the registration cost cannot be justified. Only the holder of the original patent can decide whether or not to undertake the review process for a product. If the holder of the patent decides not to defend the label, no other manufacturer can apply for a label for the active ingredient. If the manufacturer decides to re-register the product then an evaluation must be done to assess the impact on the environment and human exposure by all the labeled uses. Under FQPA all uses count, including turf.

In the case of chlorothalonil, Zeneca, now Syngenta, purchased ISK in 1998 and became the holder of the patent. Originally, the EPA proposed eliminating all turf uses based on inaccurate assessments of the amount used on golf courses. After some intensive “re-education” efforts the EPA lowered their original estimate of the amount of chlorothalonil used on golf courses. However, they required the label to restrict use on home lawns in 1999.

The proposed changes in the label have been negotiated with the EPA. At this time, the label has been finalized by the EPA. All new chlorothalonil products being labeled now have the following seasonal caps on the label. The a.i. per year is all chlorothalonil combined no matter what the source.

In addition to the seasonal caps on total amount of product used, the EPA now requires minimum spray intervals and maximum amounts that can be applied at any one time. The maximum amount that can be applied in one spray is 7.3 lb. a.i./acre, (8.8 lbs. of Daconil Ultrex) with the exception that 2 applications can be made per year at 11.3 lb.a.i./acre (14 lbs. of Daconil Ultrex). The minimum spray interval is 7 days for the lower 7.3 lb rate and 14 days for the 11.3 lb rate. The total of all sprays have to fit under the maximum seasonal cap. These limitations apply to all products containing chlorothalonil. If a product contains chlorothalonil, the amount in the product must be counted toward the seasonal cap.

Product purchased which has a previous label is not subject to the new restrictions. However, if you have product with the new label you must abide by the restrictions.

Many rumors have surfaced that chlorothalonil will be removed from the market in the next few years. The EPA is finished with the review and a label has been granted. There is a long list of products awaiting review under FQPA. It doesn’t seem likely, unless some compelling evidence of immediate environmental or health risk is shown, that the EPA will revisit the chlorothalonil issue. Over three years of work went into the review of chlorothalonil by ISK and then Zeneca. Syngenta is committed to supporting the label at the federal and state level and welcomes any input and support from superintendents and end users. If you have any questions about the re-registration issue, please contact Dr. Mike Agnew at 610-444-2063 or Jean Scott at 410-742-5630 with Syngenta.

Daconil®, Daconil Ultrex®, Daconil Weather Stik®, Daconil ZN® are trademarks of Syngenta

Important: Always read and follow label instructions before buying or using these products.

Syngenta Crop Protection, Inc. warrants that its products conform to the chemical description set forth on the products’ labels. NO OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND OF FITNESS FOR A PARTICULAR PURPOSE, SHALL APPLY TO SYNGENTA PRODUCTS. Syngenta Crop Protection, Inc. neither assumes nor authorizes any representative or other person to assume for it any obligation or liability other than such as is expressly set forth herein. IN NO EVENT SHALL SYNGENTA CROP PROTECTION, INC. BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES RESULTING FROM ANY USE OR HANDLING OF ITS PRODUCTS. No statements or recommendations contained herein are to be construed as inducements to infringe any relevant patent now or hereafter in existence.

<table>
<thead>
<tr>
<th>Treated area</th>
<th>a.i./acre per year</th>
<th>Daconil Ultrex® Equivalent</th>
<th>Daconil® WeatherStik® Equivalent</th>
<th>Daconil ZN® Equivalent</th>
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<tr>
<td>GREENS</td>
<td>73 LBS</td>
<td>89 LBS</td>
<td>12.17 GAL.</td>
<td>17.5 GAL.</td>
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<td>TEES</td>
<td>52 LBS</td>
<td>63 LBS</td>
<td>8.67 GAL.</td>
<td>12.47 GAL.</td>
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<tr>
<td>FAIRWAYS</td>
<td>26 LBS</td>
<td>32 LBS</td>
<td>4.34 GAL.</td>
<td>6.24 GAL.</td>
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Upgrade Your Outdated Toro® Sprinklers With Low-Cost Hunter Retro-Risers

Visit golf's best known courses and you will often find worn, inefficient sprinklers that have been in the ground for years – mainly due to the disruption and expense to replace them. Until now.

With new Hunter Retro-Risers, your staff can pop out old Toro® internal mechanisms and replace them with efficient Hunter gear-drives within minutes. The Toro® body with flange remains undisturbed during the change-out and no digging is required.

The Hunter RT Retro Riser is specifically designed to replace 1-inch inlet Toro® golf rotors, including models 630, 730, 760 and the discontinued 660.

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