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1989 Board of Directors

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President's Message

The Computer Age

Little did I know, when I had my first introduction to computers, that eventually they would become as common in the workplace as a typewriter or an adding machine. But that was back in the late 60's when I took a class in college titled Statistical Analysis. The computer took up most of the space in a room and all of the information (data) was entered by keypunch and read by a card reader. The computers were set up to understand machine language and Fortran IV. It was a very complicated affair to say the least.

Times have changed and the computer industry has come a long way. Most computers today are user friendly so you don't need to be a mathematical genius to operate them. Most of us can handle a computer that is as simple to use as an automatic teller machine, which is merely a computer system the banks use. Computer education is being taught in the elementary schools and is an integral part of secondary education. I was pleased to see the turfgrass students at Michigan State are now given programs to work with computers and they have a number of computers available to them in their learning laboratory.

An increasing number of Superintendents are utilizing the computer in their golf course operations. Some have obtained a computer as a part of their irrigation control package. Others have purchased computers as a business tool. The cost of computers has been reduced dramatically and they are affordable for everyone's office use.

Last year the MAGCS sponsored a very informative computer workshop and may have a followup course this year. Russ Fink has done a fine job in establishing a computer bulletin board for golf course superintendents in the Chicago area. Duane Patton has a super bulletin board for superintendents called Turfbyte which is based in Lawrence, Kansas. Superintendents with computers are really missing out if they do not use these bulletin boards. Give Russ Fink a call and he can help you get on line.

The USGA has a cooperative effort with Michigan State called Turfgrass Information File or TGIF. This service enables anyone to get information from the O. J. Noer library on any golf course or turfgrass related topic. You don't need a computer to get the information but it is quicker and easier to use a computer to search the files. This program costs the USGA a lot of money each year and has received only limited use. I would like to encourage each of you to utilize this system. Failure to support the system will result in the USGA withdrawing their financial support from this project.

The age of computers is here. Learn about the advantages of computers and how they can help you in your golf course operation. Talk to your neighbors and find out what applications they are using for their golf course. Utilize the bulletin boards we have for our industry as well as the TGIF. Once you start working with a computer you will wonder how you ever got along without it.

Bruce R. Williams, CGCS
President, MAGCS

Director's Column

Try the Silent Approach

by Mike Bavier

Have you ever thought you had died and gone to heaven? Well, that is how I felt the other day while driving up to Madison, Wisconsin. The morning was clear and cool with only just a little traffic on the tollroad. The radio announcer was telling me the snow was falling in downtown Chicago. There was none in sight on the tollway, another lake effect snow storm, I guess. My mission was to drive up to Madison to drop off something for a friend, and turn right around to return for lunch with friends.

Rather than just listening to the radio blast away, I turned it off. This gave the brain (what little there is) a chance to think about a number of things. Try the silent approach sometime. What do I mean the silent approach? A number of people recommend a quiet time each day. If you have not tried this idea for awhile — do give it some consideration. You will be surprised how many thoughts come into your mind.

My mind that day first focused on the beautiful day — plus all the things we take for granted. Did you ever think how nice most of the roads we drive on are maintained? As you drive thru southern states the roads get even better. They do not have the freezing like we have up north, so they seem to stand up much better. We are lucky we do not have to show a passport driving from one state to another. That is a bit of a problem traveling in Europe which I have done some of in the last year.

Dreaming can be fun. You can set some goals, you might just focus on completing a project, or starting a new one. You might just "smile and be happy" like they say in the song.

Why all this deep thought? It is just something to do when you are traveling our wonderful country. Having traveled overseas a number of times you realize we are pretty fortunate to live in a free and open country.

My thoughts were also with the past Gulf Crisis. Think how well our government handled the situation. We many times think how stupid our generals must be when in charge of our forces. How wrong we were this time. As a former Marine, it did my heart a lot of good to see the people out in favor of the troops. Those anti-protesters got their chance too, they do have their rights — which is what makes the United States the great country it is.

So, what might have been sort of a wasted drive turned out to be a super day. There were plenty of other thoughts, but too numerous to mention.

My thoughts now turn to some good weather for the golfers. We have some of the best courses in the world right here in Chicago. Raise your heads a little higher, most of the credit goes to you. All of you have helped this happen. Nice going.

Be sure to answer the survey on page 17 and return the post card.

University of Illinois

Black Turfgrass Ataenius — Some Observations

by Roscoe Randell

Black turfgrass ataenius grubs reappeared on the scene in 1973 as a pest of golf course fairways. This grub was different in its life history, habits, and host plants than the typical white grub, whether the annual or the 3-year grub species. There was good life history information available 15 years ago, including timing of adult activity to tree and shrub phenology. Greenskeepers hear horror stories of 100, 200, even 400+ grubs per square foot on some fairways of other courses.

Briefly, the life history can be described as follows: The ¼ inch adult black beetles overwinter in wooded swamp areas adjacent to the golf course. The shiny beetles begin to migrate to golf courses in April when crocus are in bloom. Egglaying peaks when "bridal wreath" spirea and Washington hawthorns are in bloom. At Urbana, this is usually about May 15 and a week later each 100 miles north or May 22-24 in South Cook County and much later in Lake and North Cook Counties with the cool lake effect. It is common to observe black ataenius beetles in the greens mower baskets at this time. Egg hatch and small grubs begin to feed on the roots of annual bluegrass and sometimes bentgrass. Wilted turf caused by grub feeding will appear about three to four weeks after egglaying.

Monitoring for ataenius grubs requires someone checking low areas in the fairways, especially where damage occurred in previous years. Check for wilted areas, loose sod, or presence of grubs. A cup cutter is a good tool to sample for ataenius grubs in non-wilted sod. The grubs, if present, will be feeding at the soil surface. Cut only through the first inch of soil with the cutter. The threshold for ateanius grubs to cause damage is 50 per square foot. A cup cutter samples one-tenth of a square foot at each cut. Sample many sites in fairways with a history of grub infestations. Pie-shaped cuts with a pocket knife will also expose grubs, if present.

Effective grub control products labeled for use of golf courses include trichlorfos (Proxol or Dylox), Turcam, and Triumph. There are other labeled products for grub control but are not suggested. For the best results after detecting a grub infestation follow the following steps. (1). Determine the size of the infestation — how many fairways are involved. (2). Water the infested area. (3). Apply the product according to labeled rate and directions. (4). Immediately water the treatment into the soil surface. (5). Evaluate product performance every 4 to 6 days. Most materials will cause grubs to cease feeding in 3 or 4 days. Do not expect eradication of the grub population; 90 percent control is outstanding. Also, in case you have forgotten, there is the possibility of a second generation in August. It is unusual for this generation to be a problem, but it can happen. Adult beetles migrate back to the swampy area in late September to overwinter as adults.

During the past 17 seasons since 1973 there have been some interesting occurrences with black turfgrass ataenius grubs. Numbers of infested golf courses increased in the 1970's and declined after the mid 1980's. The drought years of 1987 and 88 reduced favorable overwintering sites and this reduced

(cont'd. page 4)

(Black Ataenius cont'd.)

overall populations. This effect can reverse during the early 1990's. Some growing seasons were warmer than others. 1987 was usually warm, therefore, the heat units accumulated caused the season to be 14 to 18 days ahead of normal. Ataenius eggs were laid in early May and then damage appeared in early June in the Chicago area.

In summary then, ataenius grubs can be a pest insect on some golf course fairways. It can be effectively monitored or scouted by one of the superintendents. If there is a sufficient number of grubs to cause damage, treatments can be applied for control. The days of treating the entire course with a preventative insecticide are over. We should be more professional than to use this outdated practice. And finally, I wish someone would have come up with a better common name for this grub pest!

Turfgrass Science Education at Purdue University

by Clark Throssell

The undergraduate education programs in Turfgrass Science at Purdue University are academically strong and growing. Currently 35 students are majoring in Turfgrass Science at Purdue. The vast majority of the students are interested in a career in the golf course industry. By combining technical information learned while earning a degree, with practical work experience gained through summer employment, the students who graduate from the Purdue University Turfgrass Science program are able to contribute to the success of golf courses and firms.

Following are brief profiles of the six students graduating in May 1991 with a degree in Turfgrass Science from Purdue. These profiles are intended to acquaint you with the quality of our students at Purdue. If you have an interest in talking with any of these students please contact me or that student. If you have an internship opportunity or an opening for a permanent position, or know of a potential turf student please contact me at the address below.

Clark Throssell, Dept. of Agronomy
Purdue University
West Lafayette, IN 47907
317/494-4785

David McComb

David McComb is a senior in Turf Science at Purdue University. He is currently finishing up his degree spring semester and will graduate early summer 1991. For the past five summers David has worked as a summer intern at golf courses in Fort Wayne; three summers at the Elks Country Club and currently at Sycamore Hills Golf Club. After the spring semester he will work full time as a Second Assistant for David Bolyard at Sycamore Hills. He also plans to work at Crooked Stick Golf Club during the week of the PGA Tournament to gain tournament experience.

(cont'd. page 6)

(Purdue Students cont'd.)

Andy Slack

Andy Slack is a senior at Purdue University majoring in Turfgrass Science. Andy comes from the small town of North Manchester, Indiana, where his family resides. Andy's turf related work experience includes a summer internship at Stonehenge Golf Club in Warsaw, Indiana, a summer internship with the golf course construction company of Laverly Contractors, Inc., of Northvile, Michigan, where he was involved with all stages of installation of the irrigation system for a new 18-hole golf course, along with two years of employment in the Turf Department at Purdue. After graduation in May, Andy will be employed by Quality Golf Construction building and renovating golf courses.

Roger Hogan

Roger Hogan will graduate from Purdue University in May 1991 with a Bachelor's Degree in Turf Science. He is originally from Miamisburg, Ohio, but now lives in West Lafayette, Indiana with his wife and one year old son. He has worked two summers at the Baltimore Country Club where he gained valuable experience in fertilizer and pesticide aplications, mowing greens, tees and fairways, and hand watering and syringing greens. Roger is seeking a position as second assistant or assistant golf course superintendent upon graduation. He may be contacted at 371/743-7354.

Rob Zimmerman

Rob Zimmerman is a senior in the Department of Agronomy at Purdue University. He will graduate in May 1991 with a Bachelor of Science degree in Turf Science. Rob has been employed for the past six years at Shady Lawn Golf Club in Beecher, Illinois. He started as a grounds laborer, moved to labor foreman, took over as the irrigation technician, and currently is the assistant superintendent. While at Purdue, Rob was an active member of two honorary fraternities and worked in the turf research department. Rob is currently seeking an assistant superintendent position in the Chicagoland area and can be reached at 317/495-9715 or at 1243-3 Terry Courts, West Lafayette, IN 47906.

Scott Calvert

Scott Calvert will graduate in May with an Associate's Degree in Turf Science. He is also finishing his Bachelor's Degree in Education with an Economics concentration. Scott has eight seasons' experience working on golf courses for four superintendents. He is presently working as Assistant Superintendent at Frankfort Country Club, a modest semi-private club. In May Scott will be looking to further his career by seeking employment at an established golf course or in the golf course construction field. Scott can be reached at 317/659-1041.

Fred Wessel

Fred Wessel received an Associate Degree in Turf Science in May of 1991. During the 1991 season he will be an assistant for Steve Nichter at Greenhurst Country Club in Auburn, Indiana. He then hopes to find an assistant's job at a larger course in the Fort Wayne area before becoming a superintendent.

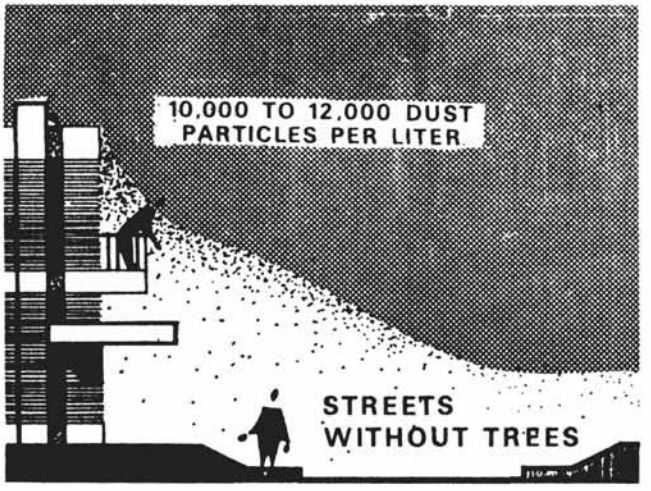
Nature's Dust Mops

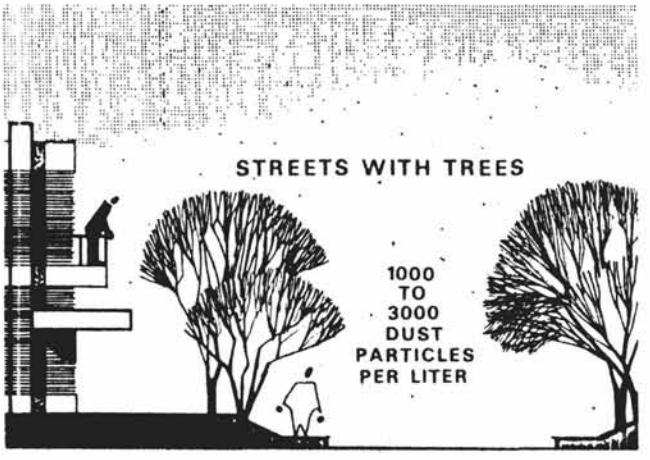
The urban tree has far greater value than its beauty. The shade that is cast on a hot summer day is welcome indeed. How many of us are aware of the cooling effect caused by the transpiration of moisture from the leaves? We have been taught that the average size urban tree transpires about 80 gallons of water on a daily basis. The evaporation of this amount of water equates to over 200,000 kilocalories of energy, or the equivalent cooling effect of 5 average room size air-conditioning units.

Trees help remove gaseous air pollutants. They trap dust particles, an important role in improving the air quality in our cities. In fact, trees have been called the "greatest dust mops" on earth. A few years ago, a Dr. Bernatzky performed some tests in Frankfort, Germany. These tests showed that treeless streets had air concentrations of dust that read 10,000 to 12,000 particles per cubic liter. Streets planted with trees in the same section of town had concentration levels of 1,000 to 3,000 particles per cubic liter.

Trees are the largest and the oldest living organisms on earth. Those of us involved in the care of Mother Nature's wonders feel strongly about maintaining a healthy environment. We know our efforts in causing our urban trees to be healthy and beautiful is important.

Credit: Tree Topics, Volume XIX
Larry Hall





Guidelines for Controlling Moss in Greens

by Norman Hummel
Cornell University

The quality of golf course greens by present day standards is often determined by greens' speed. Golf course supertendents are mowing greens shorter and keeping the nitrogen fertility lower than ever before to obtain faster speeds. A consequence of these practices have been a reduction in turfgrass vigor to a point whereby the greens are much more prone to weed encroachment. One of the more troublesome weeds to have become a problem is moss.

Until recently, the only known means of controlling moss was through the use of mercury products. With the support of the Metropolitan Golf Association, research was conducted to look at means of controlling this serious weed. This research identified both chemical and cultural tools that could be used in a moss eradicating program.

Chemical Control

Pesticides and other materials offer hope in controlling moss on bentgrass greens. In the early spring, moss commences its growth much earlier than bentgrass, giving it an early competitive advantage. Hydrated lime applied in late March at 3 to 5 pounds per 1000 square feet will burn back the moss during this period. The lime can be spread easily if mixed with a dry sand topdressing.

An effective treatment for moss control would be the Scotts Goosegrass Control; a betasan-ronstar combination. Labelled for use on bentgrass greens, this product provided 83% control from only a single application. While this product will cause some discoloration, it appears to be one of the more promising moss control products.

Siduron (Tupersan) and bentazon (Basagran) provided from 53 to 74% control of moss. While they were not quite as effective as the Scotts product, both siduron and bentazon were much safer since no injury occurred for either product.

You should note that with the exception of bentazon, the most effective treatments are preemergence herbicides. While it can't be determined from these trials whether the effect is pre or post emergence, it should be mentioned that the herbicidal activity of these materials on moss was chronic. It was several weeks before we noticed any significant decrease in moss populations.

Cultural Control

Chemicals only offer a partial solution to the moss problem. Unless cultural steps are taken to increase turfgrass vigor, chemical control of moss will be an ongoing battle. We designed studies to look at the effects of cultivation techniques and fertility on moss eradication. The results clearly demonstrated that culture can be changed to the detriment of moss.

While silvery thread moss will tolerate dry conditions, it is favored by an abundance of free water. Core cultivation immediately followed by sand topdressing would create a system of "vertical drains" that would facilitate a rapid water removal of the surface. We found that moss removal was hastened where this practice was followed compared to core cultivation alone.

(cont'd. page 10)

(Controlling Moss cont'd.)

Deep spiking was also beneficial compared to core cultivation alone.

Nitrogen and iron are the most important tools in a moss eradication program. Moss control improved as the rate of nitrogen was increased. Moss was eliminated over two growing seasons from plots that were initially 40% moss by increasing nitrogen rates to about 0.8 lbs. per 1000 square feet per growing month (6 lbs. N/year). Iron applications at a rate of 6 ounces per 1000 sq. ft. per month were beneficial during the first year, especially at the higher rates of nitrogen. Iron had no effect on moss in the second year.

While we didn't measure greens' speeds, these high nitrogen treatments no doubt resulted in slower speeds. The bottom line though, is if you have moss, you are going to have to at least temporarily increase nitrogen rates. Effects on greens' speeds can be minimized by careful control of water, double cutting, or increasing potassium levels.

Moss control research has until now looked at fertility and herbicides independently. Studies will be conducted this year to look at combinations of herbicides and nitrogen fertility in moss eradication "programs". Perhaps this research will identify more reasonable nitrogen rates to use in conjunction with a herbicide program to eliminate moss from greens.

In summary, enough information is known for a superintendent to develop a legal moss control program. Early spring applications of hydrated lime, followed about a month later and in the early fall with a herbicide are the first steps in controlling moss. Increasing your nitrogen levels during this period will no doubt improve the competitive advantage of desireable grasses at the expense of moss. Furthermore, control your soil moisture levels through careful irrigation and by providing good drainage throughout the soil profile.

Credit: Our Collaborator, Northeastern GCSA, September 1990

Nice Weather Brings Out Tree/Shrub Trouble

Spring is here. Trees and shrubs are sprouting. Crabapples are in bloom. It is a great time of year to be outdoors enjoying nature.

But, according to James A. Fizzell, University of Illinois Horticulturist in Cook County, we are not the only ones that enjoy this time of year. Since many of the insects and diseases that attack our plants like this kind of weather too, many problems that show up later can be prevented by some attention now.

Foliar diseases such as leafspot, anthracnose and rust invade leaves as they open in spring. Apple scab and blackspot of roses, though they can occur throughout the season, are less severe if primary infections are prevented.

Fizzell suggests treating plants with a history of these problems with appropriate preventative fungicides such as triforine, (Funginex), chlorothalonil (Bravo, Daconil 2787) or benomyl (Benlate). Be sure to follow label directions.

As soon as leaves emerge, insects that feed on them arrive as well. Eastern tent caterpillars make webs in fruit trees, willows and other ornamental trees. Clip out the "tents" when they appear, put them in a plastic bag and into the trash for pick up.

Masses of caterpillars on mugho pines are pine sawfly larvae. These insects will strip off the older needles on a shoot, but will not attack newly developing shoots. Strip the caterpillars off affected shoots with a gloved hand, or spray with malathion.

In the garden, there are insects just waiting for plants to arrive. Newly set broccoli or tomato plants that disappear or are cut off at the soil line are victims of cutworms that overwinter as hungry, immature larvae. Wrap stems with aluminum foil so the nighttime marauding pests can't find them. Slugs spend the night feasting on lettuce, petunias; earwigs perfer marigolds and chrysanthemum. Snail baits for slugs and carbaryl (Sevin) for earwigs will protect these varieties.

Take time now to do a little preventative work. You'll be glad later this season that you did.

From: Pat Jones, Director of Comm., GCSAA
Re: Product Warning

We have learned that DuPont has issued an immediate recall of all *Benlate 50DF, Benlate 1991 DF* and *Tersan 1991 DF* brand fungicides. These products should **not** be used or sold. Superintendents with any of these products should return them to the place of purchase for full credit.

DuPont believes the products may have been contaminated with low levels of atrazine and could therefore injure turfgrass or other plants. The company plans to keep the products off the market until they can verify their purity. Superintendents can contact DuPont at 800/441-7515 if they have questions.

The company is making plans to notify all customers. However, I urge you to take immediate steps to communicate this important information to superintendents in your area so that we may prevent potential damage. Thank you in advance for your assistance.