



GCSAA AFFILIATE

# Turf Times

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The newsletter from the Northern Michigan Turf Managers Association

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## Summer Time/Summer Help

As the temperatures rise and the work load increases, we all ask ourselves, "Where are we going to find our summer help?" This is a simple question but does not end with a simple or complete answer. It is a proven fact that the more dedication you put into something the better it will turn out. That is exactly what needs to

be done when you begin the interview process.

Usually, you start with running an ad in the paper or passing the information by word of mouth, depending on the number of people needed and what method you feel comfortable with.

Having a job application for the candidates to fill out would be in order. This would then allow you to screen applications instead of each applicant. Several applications can be reviewed quickly once you know what qualifications you are looking for in an applicant.



President Jeffrey Holmes

A few things to look for when reviewing applications are; past experience, longevity at past jobs, qualifications leading into your job opening, wage expectations and sometimes even a reference call to past employers before the interview.

During the initial interview this is your brief time to decide if you see the potential in this person to fill the job requirements. A second interview is always a good idea, if time permits, to discuss in greater detail specific qualifications/experience and contact their references listed.

A couple of things to look for in the interview are: let them express what they are looking for out of the summer job, explain to them what they are applying for and what will be expected of them. Also, make some reference checks to past employers. Several of them will tell you they cannot give out information. If so, just ask if they would rehire this person, at least this will give you an idea if you are headed in the right direction or not.

If you get a past employer to speak with you, be courteous to them by having your questions ready to ask. Don't be thinking them up as you are asking them.

We all know that when summer hits, you don't have a lot of time to be interviewing. This is why it is very important to plan ahead and interview before the work load overwhelms you.

Good luck with your search for quality employees. There are some helpful materials in our N.M.T.M.A. Library for hiring employees.

## GCSAA Bound For Dallas in '94

Dallas will be the site of the 1994 International Golf Course Conference and Show. GCSAA's board of directors confirmed the selection during the board's spring meeting. This will be the first time the GCSAA Conference and Show will be held in "The Big 'D'". "Dallas was able to make us a very attractive offer," said Colleen Smalter Pederson, GCSAA senior director of education and marketing.

The 1994 event was originally scheduled to be held in Houston. However, the George R. Brown Convention Center in Houston would not have had enough continuous floor space to house GCSAA's ever-growing trade show, and no convention center hotel was available to serve as a headquarters hotel by 1994.



RECYCLED PAPER

## Motivation and Stress: My Perspective

by Gregory A. Reinbold, G.C. Superintendent; Shelbyville Elks C.C.

As golf course activities are in full swing and we become engrossed in daily schedules that never seem to end, take a moment to think about your own motivation and stress levels.

During the past few years, I have become more aware about myself regarding mental attitudes and outlooks to help keep the proper perspectives with my job and personal life. Keep in mind that I'm no expert when it involves psychology, and no two people are affected the same by these influences. However, I have learned to recognize some of my own 'shortcomings' through articles I have read or by talking with a few friends who have had adversity somewhere in their lives.

Throughout my own 'ups' and 'downs' in life, I, like many of us do, have done some 'soul searching' to help me know 'me' better. In addition, with our profession as demanding as it is at times, I have let my job control me more than I should. This has caused me to look for ways to help keep the proper perspective about my job and personal life. It seems to be a constant struggle and sometimes may appear to border insanity!

Why? Since I was raised to be fairly independent, and to have a lot of pride and self-esteem, I learned to set goals and be self-motivated toward achieving them. Realizing I loved my job despite the long, hard hours, I soon became aware of my somewhat 'perfectionist habits.' Although nobody is perfect, perfectionism can be a burden. For me, it results in being obsessively organized, neat and clean so that everything appears well planned. Perfectionists may accomplish a lot but they can never do enough. Combine this with high expectations and a little procrastination and it can add up to long days which are sometimes very frustrating.

The need to be involved in all aspects of detail through 'control' is characteristic as well. This can occur unknowingly, and becomes evident when a lack of control occurs. I tend to feel somewhat inadequate and very frustrated when this happens.

These qualities tend to add up to self-imposed stress, which isn't all bad. However, when I allow myself to take it home, it can affect my personal life as well. Luckily, I'm a single man! The golfers may demand perfection, but your family usually doesn't.

During the past year, I experienced significant external stresses through the club politics that are familiar to many of you, I'm sure. Fortunately, this resulted in some positive ways at work and at home in the long run.. I learned to let go once in a while by trusting my own confidence and by a belief in God. I allowed humility in by swallowing my pride when I was wrong and learned to be humble. Communication and achievement became easier and it made me feel good, thus reducing stress.

The perspectives we develop of ourselves as we mature and grow older will help us understand the importance of self-control; and how to provide some balance to our lives and thus reduce stress. Fifty percent of the battle is realization, the other fifty percent is the remedy. This is the part I have to work on!

For me, stress reduction starts with knowing I did the best I could do: laughter with friends, country music, reading and exercise (sports). Yes, it even includes playing golf. Please take a moment to read this poem I found recently, and have a great summer!

*Sometime when you're feeling important,  
Sometime when your ego's in bloom.  
Sometime when you take it for granted,  
You're the best qualified in the room.*

*Sometime when you feel that your going,  
Would leave an unfillable hole.  
Just follow this simple instruction.  
And see how it humbles your soul.*

*Take a bucket and fill it with water,  
Put your hand in it up to your wrist.  
Pull it out and the hole that's remaining,  
is a measure of how much you'll be missed.*

*You may splash all you please when you enter,  
You may stir up the water galore.  
But stop and you'll find in a minute,  
That it looks quite the same as before.*

*The moral of this quaint example,  
Is to do the best that you can.  
Be proud of yourself, but remember,  
There is no indispensable man.*

• AUTHOR UNKNOWN •

Credit: Ind. GCSA



# Managing for Success

By Michael Morris, Golf Superintendent, Crystal Downs C.C.



Michael Morris

A friend of mine from the USGA once told me, "Nothing happens quickly in agriculture, except crop failure." These are disquieting words for any turf manager heading into the heat and stress of July and August. However, this little quotation doesn't merely foreshadow catastrophe. My friend's words suggest that a healthy and productive crop is a long and involved

process of building and creating a healthy environment in which to grow. For example, Dr. Paul Reike continually stresses the fact that topdressing programs for greens are long term commitments to building a healthy growing medium for the grass plant: building the soil for the future. A good turf manager understands this.

In our day-to-day lives, the same is true. A person's own health and sense of well being can be attributed to a series of successful decisions and actions which cumulatively make that person who he or she is to this day. A successful person puts great effort into building an orderly life; and this includes everything from learning to eat well and exercise, to practicing a wholesome family and spiritual life. The people who always seem to confront a barrage of challenges or suffer a series of failures are continually searching for answers and jumping from one 'quick fix' to another with little or no consideration for the long term nature of their endeavors - like a turf managers who sporadically sand topdresses

and randomly fertilizes the greens, creating a layering problem which, in turn, sets up the conditions for a prolonged series of crop failures.

Think about long term friendships, successful marriages, or perhaps a maintenance crew that works harmoniously together and accomplishes its goals. In all of these instances, success is a matter of long term commitment, thoughtful foresight, careful preparation and the ability to face and conquer challenges as they arise. A first rate and efficient maintenance crew does not materialize out of dust: careful hiring, detailed training and follow up; attention to the human, as well as the mechanical elements of the maintenance operation; and many other factors contribute to the success of the crew. Failure will arise quickly if the crew is handled with a lack of commitment to the goals, poor planning, no follow up, snap judgements, inflexibility and the like. Remember, "Nothing happens quickly in agriculture. . ." and yet we can not avoid the conclusion of my friend's quotation, ". . . except crop failure." Nothing in life can escape failure and eventually demise. Despite preventative fungicide treatments, a resistant strain of disease may develop and begin to destroy your crop. As old friends grow and change, much of the amicable nature of the friendship may fade away. Such failures and challenges can come quickly and unexpectedly. But the individual who has managed for success will be able to cope with or even overcome challenges and failures, whether they occur on the golf course or in one's personal life. The successful individual, over time, builds a healthy environment in which to grow, and manages the path to success all life long.

## Lebanon Introduces Homogeneous Fertilizer/Control Product with TEAM

Lebanon Turf Products has introduced Country Club 7-3-22 with TEAM for use on fairways, tees and other professionally maintained turf areas. This premium homogeneous fertilizer with 100% Sulfate potash is impregnated with 1.155% TEAM herbicide - a unique combination of Benefin (Balan) and Trifluralin (Treflan) - and is designed to save golf course superintendents and grounds maintenance personnel both time and money.

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### Letters to the Editor

You can communicate directly with the NMTMA and your fellow members by writing to:

*Turf Times*  
c/o Mike Morris  
PO Box 1575  
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Share your thoughts and feelings about our organization or the industry in general

## Mechanic's Corner

By Greg Riley • Ass't Supt./Mechanic, Huron Breeze Golf & Country Club

Here at Huron Breeze, we use our irrigation system as our water source for spraying. During the summer months, we have a problem with small debris in the water that can clog screens and nozzles on the spray rig. To alleviate this problem, we have installed a small water filtration system to our quick coupler that removes the debris before it has a chance to enter the spray tank.

# Know What's in Your Sand

By Gary Farrant (LAKE PERRY CC)

*This is a letter I am sure all superintendents hope they will never have to write, but the following is the article I had to put in the September newsletter.*

Everyone has been wondering all summer, "What's wrong with the greens?" and we finally have the answer. The problem has been a small amount of Atrazine in our topdressing sand. This has been a very trying summer and we at the Lake Perry CC would first like to thank all our members for helping us through it.

We will be the first to admit that our greens haven't been up to par all summer. Without going through a lot of detail, here is a brief history of what we went through this summer: First, in early June, we started to notice that the greens were not quite 'right'. At this point we did several things, including having the soil tested. All the results came back very good; next, we had the water tested and once again there was no sign of any problem. Then we tried several different varieties of fertilizers, iron and micro nutrients to get some response from the greens. At this point, it seemed nothing was having any effect on the greens and, in fact, they seemed to be getting weaker and starting to lay over a bit. We also implemented an increased preventive spraying program for fungus and insect dam-

age.

Five years ago, when we started LPCC, we started the greens on a light topdressing program, along with aeration in the spring and fall, and we have used the same sand source the entire time. This is one of the biggest reasons it took us awhile to identify the problem.

After we lost 12 & 13 greens, we took several samples from several greens to the Kansas State University Plant Pathology Labs and had in-depth discussions with the heads of the Turfgrass Department and the Plant Pathology Department. At the same time, we had samples tested for nematodes, pythium blight and insect damage. Once again, everything came back negative, except for some slight insect damage.

By this time, it was already early August and the greens were not any better. After talking to several agronomists, we decided to aerate the greens, this being the industry standard to rejuvenate greens. In order to get a good response, we hired an outside contractor with a special aerator to do the greens at a depth of eight inches. At this point, we were also considering a possible layering problem, or 'Black Layer', which is an algae growth in the top inch of the soil. After the aeration was done, we topdressed with more sand than we ever had, in order to fill the extra deep holes. Several days later, #4 and #5 greens were in real trouble and the rest of the greens were barely hanging on. In retrospect, this turned out to be a mixed blessing, as it finally pinpointed that something was wrong with the sand. We called in several local experts and superintendents who had had trouble with greens before, and, as a group, we determined by the way the grass was dying that it greatly resembled Atrazine poisoning. This was on a Tuesday and six days after we had applied the sand. That night, we received a two-inch rain and an-

*(Continued on next Page)*



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## Nominations being taken for Board Positions

This year's nominating Committee consists of Kim Olson, Tom Reed and Bob Steinhurst Jr.. If you are interested in becoming a board member, or know anyone else who is interested, please submit the name(s) to one of the members of the nominating committee.

A list of nominees will be published prior to the annual meeting. Election of new officers will be held during the annual meeting. Elected officers will begin their terms on November first, 1991.

# Know What's in Your Sand . . . *(Continued from previous page)*

other two and a half inches in the next two days, and the temperature never went over the 80's. This was a real God-send, and if it had been dry and in the 100's, I hate to even think what might have happened.

On the day the agronomists and the other superintendents were here, we took several pictures and soil tests and sent them to a soil lab in Nebraska, along with a soil sample. The test came back positive. As bad as things were, it was a relief to finally know for sure what was wrong with the greens.

There is some Atrazine in the water in Lake Perry, and a much higher level of it in the Kansas River, we found out after talking to the Corp of Engineers, the Topeka Water Treatment Plant and the Kansas Dep't of Health and Environment. There are obviously a lot of variables involved in the process until the grass actually dies, as evidenced by the fact that all the greens didn't die at once. The lower greens with less air movement were hit the hardest, as these plants weren't as hardy as these plants were not quite as vigorous as the ones in the higher areas.

The moral to the story is that we were slowly poisoning the greens all summer and didn't know it. The good news is that we have identified the problem and the greens are already doing a lot better. The outlook for this fall and next year is very good, as we are in the process of finishing automating the fairways and we will be overseeding them soon. All the tees are now sodded to zoysia and most of them have grown in really well. Last but not least, the Atrazine is leaching from the greens and they are getting better every day.

We have always prided ourselves on our greens and can assure you that we would rather have 18 dead fairways than one bad green, and that we will have the greens back in championship form just as soon as possible.

Yes 1990 is a year I wish to forget, but I never will. Since I came to LPCC in 1985, we have been on a heavy sand topdressing program to help build up the sand base in our greens. We inherited penncross bentgrass greens that had been established in the late 1970's. All 18 greens are soil based. The previous superintendent had already started a program and after 7 years, we had established a three inch sand base by spring and fall aeration, and light topdressing every three weeks during the growing season. I should note that we had been extremely pleased with our greens up to this point as they were the course's biggest asset.

## SOME OBSERVATIONS

1. In the early stages, we had definite spots that resembled fungus damage. These usually started as small circular areas that seemed to simply stop growing; they looked like localized dry spots, but the area in the root

zone was always moist.

2. The greens took on a pale yellow cast; and no iron, fertilizer or watering pattern seemed to snap them out of it. The plant leaves grew increasingly slim and started to curl at the top. On the worst days, you could stand on the greens and see soil.

3. Weak areas and low greens were hard hit; the clean up laps and low greens with little air movement were by far the hardest hit. The higher greens showed very little damage.

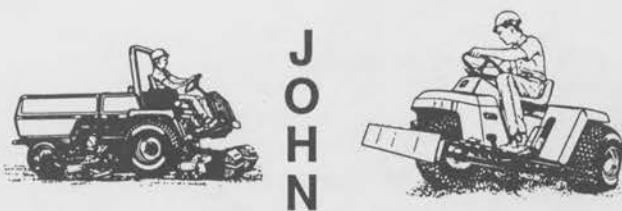
4. Once injured, the grass never, in any instance, recovered.

5. The worst damage seemed to come from the dragging process, as the clean up laps were hurt the worst.

6. The two greens that died during the summer went very slowly. These two greens were the only ones we verti-drained in the spring, then after we first topdressed them, about three days later, they had a purple hue to them that we attributed to dragging injury. The next day, these greens were dead, and I mean completely dead! We're not talking about wilting or purple grass, these greens were already straw-colored

*(Continued on next page)*

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# Know What's in Your Sand. . . (Continued from previous page)

dead. I had never, ever seen anything like it! We have had dome pythium damage before and other 'normal' problems, but nothing like this.

7. The problem spots seemed to start as purplish circles and they would seem to come in and out of this, but once they turned straw-colored, they were dead.

8. We thought for some time that it was some sort of black layer, but this turned out to be the effect rather than the cause, as the dead areas developed a definite black layer in the top inch of the dead areas.

9. We had a terrible problem with algae all summer, as it always moved right into the weak areas as soon as they started having problems.

10. After we aerated in August with a vertidrain and topdressed heavier than we ever had before, almost all the greens died. I firm-

ly believe that the only thing that saved them was unusually cool weather and five inches of rain during the next five days.

I would like to add that several area superintendents were a great help in determining the problem and helping us out with sod. A BIG THANKS to Bob Hadwick, Mike Hulteen, Cary Tegtmeyer and everyone who attended our August meeting and the KSU staff.

No one seemed to know exactly what levels of Atrazine would cause damage to bentgrass, but after talking to Jeff Nuss, who was working on a study with Atrazine applied through irrigation, he thought that about .06 ppm would kill seedlings and .09 ppm would kill mature bent. These findings are documented in his article in the February issue of GCM.

## SOME OF THE FACTS I DID

### LEARN ARE:

1. The 35 tons of sand I had delivered last year tested from .02 ppm to .09 ppm. (The highest level was from a sample that the sand company had done on their own from what was left of our August delivery.)

2. All the sand we had tested and that the sand company had done, all tested positive. A pile from a Topeka course tested the same as ours, tested .03 ppm and the lowest tested .02 or less.

All the sand

came from the Kansas River. I talked to the Topeka Water Treatment Plant and they said the water in the river tested as high as 15 parts in late spring. Also, their chemist said their treatment plant couldn't filter out any of the Atrazine, so at times the drinking water in Topeka was as high as 15 ppm.

4. The water in Lake Perry, which we irrigate with, ranged from .06 ppm to .02 ppm last year. Any water source that is used for drinking water has this information readily available.

5. Atrazine is a grassy herbicide used world-wide in agriculture. Farmers apply it in early spring.

6. On the test we had done, .02 ppm was the lowest level testable. So, if the sample has a trace of .02 ppm, the test will simply read .02 or less, which means it could be an amount down to .001 ppb (billion).

7. The sand company tested their stockpiles in Topeka, Lawrence and Kansas City and found Topeka the highest and Kansas City with just a trace.

8. The sand company is going to test a sample in early spring, before the farmers start applying the Atrazine. If it is low enough, they are going to stockpile sand just for golf greens for the season.

So, in closing, I would strongly suggest that you check with your sand company and see where they get their sand and have it tested.

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# What makes Lyme Disease Tick?

By Brian Bret, Ph.D.

Lyme disease is rapidly becoming an important public health concern. This potentially debilitating illness is now the most common tick borne disease in the United States, and a likely place to get it is right in your backyard.

Reports of the disease are likely to increase as more people become aware of its causes and symptoms and seek medical help for proper diagnosis and treatment.

At the same time, the bacteria responsible for the disease is certain to increase for two reasons: First, the deer tick that transmits the disease from one host to another appears to be exploding in population. Second, the deer tick, the bacteria and the disease are spreading throughout most of the continental United States by mammals and birds that act as hosts for the ticks.

A recent article in USA Today stated that scientists now believe the bacteria causing Lyme disease was present in this country long before it became officially recognized in 1975. Therefore, instances of Lyme disease that occurred decades before were probably misdiagnosed because the disease was not known.

## Recognizing the Symptoms

Lyme disease has a variety of symptoms, which makes it difficult to diagnose. It can also mimic other diseases such as Alzheimers disease and certain neurological disorders.

One of the first signs of Lyme disease is a reddish, purplish or brownish rash around the site of the tick bite. The rash expands from the center out and may look like a bulls eye with red rings inside other red rings. However, not everyone who contracts Lyme disease will experience a rash. In some cases, the rash can go away without the infected person knowing what it is. Other early symptoms, which can occur within 32 days of the tick bite, include swollen lymph nodes near the bite, flulike symptoms, headache, fever, chills, stiff neck, nausea and fatigue.

Other symptoms that can occur later include overall body weakness, severe headaches, Bell's palsy, carpal tunnel syndrome, dizziness, seizures, disorientation, muscle and joint pain, neurological and cardiac problems and arthritic symptoms. Late symptoms can occur months to years after the person is infected.

If you think you might have been exposed to Lyme disease, contact your doctor immediately. It can be detected with a blood test and treated with antibiotics in the early stages.

## Life Stages

The deer tick has a two year life cycle, but goes through four life stages - egg, larvae, nymph and adult. In late spring or early summer, female adult deer ticks

*(Continued on page 11)*

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# The Sun and You. . . From "THE SUN AND YOUR SKIN," American Academy of Dermatology

## ALLERGIES

Some people develop allergic reactions to sun exposure. These reactions occur after only short periods of exposure. Bumps, hives, blisters or red blotchy areas may occur repeatedly in the same place after each sun exposure. Researchers say these reactions are due to a persons previous sensitization to sunlight or to contact with certain cosmetics, perfumes, plants, topical medications or sun preparations. Some drugs, including birth control pills, antibiotics, antibacterial ingredients in medicated soaps and creams, even tranquilizers can make some individuals more sensitive to the sun, causing a skin eruption. The allergic reaction is called a photosensitivity reaction. If this occurs, see a dermatologist and avoid the offending product in the future.

## DISEASES

Some diseases become worse or begin upon exposure to the sun. These include herpes simplex (cold sores), chicken pox, a number of less common disorders, serious skin diseases, conditions that affect the body's metabolism, and genetic problems. In Lupus Erythematosus, overexposure to the sun may lead to a very serious attack or even death if unrecognized or inappropriately treated.

## WHO IS AFFECTED?

Whether individuals burn or tan depends on a number of factors, including their skin type, the time of year, and the amount of sun exposure they have received recently. The skin's susceptibility to burning has been classified on a five-point scale as follows:

- TYPE I** -(Extremely Sensitive)- Always burns, never tans
- TYPE II** -(Very Sensitive)- Burns easily, tans minimally
- TYPE III** -(Sensitive)- Burns moderately, tans gradually to a light brown.
- TYPE IV** -(Minimally Sensitive)- Burns rarely, tans well to a dark brown.
- TYPE V** -(Not Sensitive)- Never burns.

Individuals should select a sunscreen to provide protection according to their particular skin type, the time of year, their location, and the activities they plan to do, but always should use a product with an SPF value of 15 or greater.

People who are out in the sun a lot, like lifeguards, and people with extreme sun sensitivity should apply an opaque sunscreen - such as zinc oxide, a thick white ointment - to completely cover vulnerable spots like noses and lips.

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# Controlling Borers on White Birch Trees

Roscoe Randall, Extension Entomologist, University of Illinois

Borers have destroyed many beautiful white birch trees. The bronze birch borer is a common insect pest across the midwest. Early symptoms of borer activity include yellowing of leaves at the top of the tree, then die back at the top and eventually the entire tree may die. Eggs are laid in bark crevices by a slender, 3/8" long, bronze beetle in May of each year. Eggs hatch and the legless, white, flattened grub tunnels beneath the thin bark. The tunneling about under the bark loosens it and also girdles the limb or trunk being fed upon.

Control alternatives include planting birch species not commonly attacked by the bronze birch borer. These include river birch, a bronze bark birch, or a white bark species called Whitespire, which appears to be resistant to borers. Fertilizing and watering to prevent drought stress appear to reduce borer activity, but birches grown in the open are under stress in mid summer.

Insecticide application is another alternative. Since 1970, entomologists at the University of Illinois have suggested the use of Cygon 2E as a spray applied in late May or early June and repeated three weeks later. This year we also suggest Dursban as an alternative insecticide spray.

Another technique which has been tried and evaluated since 1977 is the use of Cygon 2E applied as a band or collar on the trunks of white birch in late May or early June. The results for the past seven years have been favorable. The method is to simply apply Cygon 2E as a concentrate out of the original container in a 5 or 6 inch band around the trunk below the lower limbs. Apply it with a paint brush or, if there are many trees to treat, with a small, low pressure sprayer. As with spraying a dilute spray, apply on a drying day when the concentrate will dry rapidly. It will be translocated into the tree and will kill hatching borers.

Cygon will leave a slight yellow stain on the trunk but will disappear before fall. Do not come in contact with the Cygon concentrate while applying it. Do not apply a band wider than six inches. Banding is not an improved method over spraying the birch tree but is easier and can be used where spraying would be difficult. Neither spraying nor banding will save a severely borer damaged birch tree. Also, do not band non-birch trees suspected of being infested with borers as Cygon may injure or kill other trees

Credit: **THE BULL SHEET.**

## *Change of Address, Membership Application info available*

Any member with a change of address should immediately contact  
**Thomas J. Reed at 3733 Apollo Drive, Traverse City, MI 49684.**

He should also be contacted if any person would like to apply for membership in NMTMA.

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## NMTMA: MOVING AHEAD



Bob Steinhurst

I do not think anyone will disagree when it is said golf in Michigan is big business. In Northern Michigan, where resorts make up a large part of the golf courses available to the public, this is especially true. During the golf boom, N.M.T.M.A. was a modest but

active and growing organization, lacking only respect from the other more established associations. The growth in golf spurred growth in the association. Turf managers and vendors, along with the founders of the association, have created a very important tool for turf and related industries in the north.

In order to continue to move the N.M.T.M.A. ahead, new people with different ideas and talents are needed. If anyone has something to contribute or would like to serve on the board, please contact a current board member. Nominations for directors are taken up to thirty days before the annual business meeting in October. Input from the membership is also helpful, so don't hesitate to share your ideas.

Having served two years on the board, I have worked with many hard working and talented individuals. Both past and present board members have made many improvements which has made the N.M.T.M.A. a plus for members and the industry. I have enjoyed the two terms and look forward to serving the association somehow in the future.

## GCSAA Presents \$50,000 Turf Research Grant. . .GCSAA News Release

Research into new environmentally beneficial types of turfgrass received a financial boost during the 1991 U.S. Open when the Golf Course Superintendents Association of America (GCSAA) presented grants totaling \$50,000 to the United States Golf Association (USGA). The grants will go to help fund the work of the USGA/GCSAA Turfgrass Research Committee in the coming year.

"We're extremely pleased to once again offer our financial support to the committee," said Stephen G Cadenelli, president of GCSAA. "More important than the money, however, is our pledge to take the knowledge gained from this research and disseminate it to those responsible for America's golf courses."

The Grants were presented during the Golf Writers Association of America dinner just prior to the start of the Open. USGA and GCSAA have worked in partnership on turfgrass research since 1983. The goal of the research program is to find improved types of turfgrass that are suitable for golf courses but which require less water and fewer pesticides to maintain. A number of new grasses have already been developed and are in use on golf courses today.

# Lyme Disease. . .

*(Continued from page 7)*

drop off their hosts and lay eggs on the ground. After about a month, the eggs hatch into seed ticks, which are six-legged larvae.

Soon after hatching, the larvae begin searching for hosts from which to feed. The larvae do most of their questing for hosts in leaf litter and the forest floor and do not climb

high. For this reason, the primary host is the white-footed mouse, and it is at this stage that the tick acquires the Lyme disease bacteria (called a spirochete in the scientific community) from infected mice. Tick hosts can also include other small ground dwelling animals such as voles and some ground nesting birds. Newly hatched larvae are not infected with the Lyme disease bacteria. They usually pick it up from the infected host as they feed.

After feeding two to three days on the host, the larvae drop off on the ground and winter over in leaf litter, thatch or soil. The next spring, they molt into eight-legged nymphs and still carry the infection.

Nymphs occur in late spring or early summer of the second year. Their populations peak in midsummer. Soon after molting, nymphs begin searching for hosts to feed on. Unlike the newly hatched larvae, nymphs are not restricted to ground level when searching for suitable hosts. They climb grasses and weeds. It is at this stage that humans are most susceptible to ticks. Other common nymph hosts include medium size mammals and birds. If the nymph is infected, it will pass it on to the next host it feeds on.

The average infection rate of nymphs is about 25 percent. This means that if you are bitten by a nymph, you have a one in four chance of being bitten by an infected tick. In some areas of the country, this rate can be significantly higher.

After a few days of feeding on their hosts, engorged nymphs drop to the ground and remain there until their final molt. By late summer or early fall, nymphs are molting into adults. Adult populations peak in midfall. If a nymph has been infected with the disease, it will carry it into adulthood as well.

Adult ticks climb shrubs and tall grasses in search of hosts. The most common host is the white-tailed deer. Other large hosts include dogs and humans. After feeding for a few days, the adults drop off and winter over. Adults can also be found the following spring. The infection rate of adult ticks can range from 40 to 50 percent.

## **Making your property less hospitable to ticks.**

The control of Lyme disease provides an ideal opportunity for an integrated pest management approach. Control methods must include mechanical, physical and chemical methods aimed at the ticks and their

*(Continued on next page)*

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### Michigan State University Announces Turfgrass Field Day

The 1991 Michigan State University Turfgrass Field Day, Trade Show and Equipment Auction will be held on Thursday, August 22, 1991 at the Hancock Turfgrass Research Center on the Michigan State University Campus. The Field Day begins with registration at 8:30 am and the field tour at 9:15 am. At 11:00 am, the Trade Show opens, and lunch is served at noon.

Following the trade show, an auction of new and used equipment will be held at 2:00 pm. This year we are instituting a new pricing policy. Advance registration for the tour will be \$10.00 and includes lunch. Registering at the Field Day will cost \$15.00. If you are not on our regular mailing list, please contact:

**Dr. Bruce Branham  
Michigan State University  
Dept. of Crop and Soil Sciences  
E. Lansing, MI 48824**

for a copy of the field day brochure.

## Lyme Disease...

*(Continued from previous page)*

hosts. However, no control program can guarantee that a person will never get Lyme disease.

If a tick does not find a host soon after it hatches or molts, it will die. Therefore, making your property less hospitable to tick hosts such as deer, white-footed mice, birds, squirrels, chipmunks and other mammals is helpful in controlling the spread of Lyme Disease.

However, controlling hosts is not always possible or desirable over large areas. For instance, getting rid of deer populations would affect only adult ticks, and getting rid of white-footed mice would only affect larvae and nymphs. Likewise, controlling the dozens of species of birds and mammals that are supplemental hosts would probably be impossible.

Yet, homeowners can take steps to limit host populations - especially rodents - around their property. The following are some suggestions for making property less desirable as a habitat for tick hosts.

- Keep lawns mowed.
- Keep weeds cleared and shrubs trimmed.
- Clean up leaf piles and organic debris and do not allow it to accumulate.
- Move wood piles away from the house and play areas.
- Inspect your home for possible entry sites for rodents.
- Move bird feeders away from living or play areas.

### Dress the part when outdoors

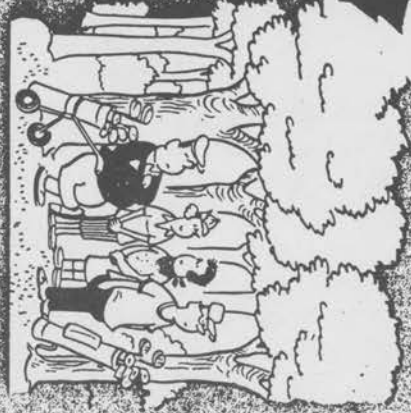
The threat of getting Lyme disease shouldn't keep anyone from enjoying the outdoors. If you plan on being in a tick prone area, dressing properly is one way of reducing your chances of coming into contact with ticks:

- Wear light-colored clothing so ticks will be easier to spot.
- Wear long-sleeve shirts with collars.
- Wear long pants.
- Tuck your pants into the top of your boots or inside your socks.
- Wear your hair tucked up in a cap away from your neck.
- Use an effective insect repellent.
- After being outside, check yourself for ticks, and shower or bathe thoroughly before going to bed.

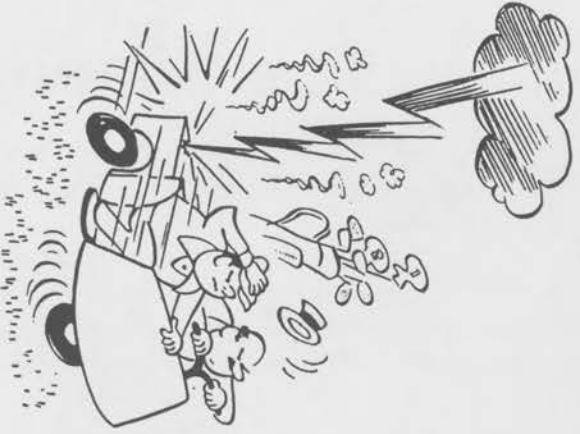
Credit: **THE BALLMARK**

# LIGHTNING HILLS

CLIP OUT AND POST!



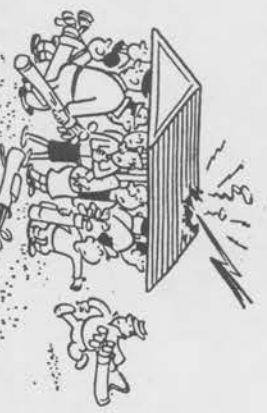
**DO STAY AMONG SEVERAL TREES**  
It is unlikely that lightning will be attracted to a grove of trees.



**DON'T STAY IN YOUR GOLF CAR**  
In 1959 two Chicago golfers were killed as they raced toward the clubhouse in their car during an electrical storm.



**DON'T RAISE CLUB OR METAL UMBRELLA**  
Several golfers have been "electrocuted" when their raised club or umbrella acted as a lightning rod, attracting the bolt.



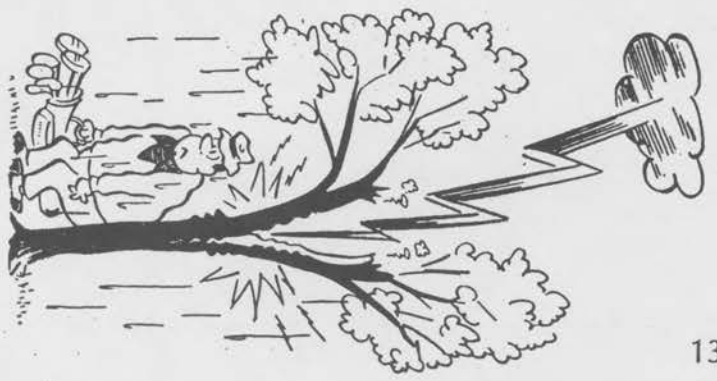
**DON'T GET IN A SMALL SHELTER**  
Small, exposed shelters may offer protection from rain, but little, if any, from bolts of lightning.



**DO SEEK A DEPRESSION**  
Lightning rarely always skips valleys or other depressions in the ground.



**DO FIND A LARGE BUILDING**  
Lightning won't get you in a large metal or otherwise protected building.



**DON'T GET UNDER A LONE TREE**  
More golfers are killed in rain storms in this manner than any other. Single trees are especially attractive to lightning.

CLIP OUT AND POST!

# 1992 Conference & Show Plans Shaping Up

The 1992 GCSAA Conference and Show in New Orleans promises unparalleled educational and professional opportunities for those in the golf course management industry. Watch for your Early Bird Brochure to arrive in late July, and take advantage of the valuable member-only discounts for early registration.

The industry's biggest event will begin with the 1992 GCSAA Golf Championship, which will be held at top golf courses in Ponte Vedra Beach, Florida.

Conference week kicks off with a record setting 53 one-and-two day seminars scheduled for Monday, February 10 through Thursday, February 13. The Opening Session and Reception will be held Thursday evening. Six educational sessions are planned for Friday, February 14, along with an Environmental General Session. Speakers for the environmental session are expected to include a high-ranking official in the regulatory community, a spokesperson for an environ-

mental advocacy group and a nationally known media representative.

The distributor preview of the GCSAA Trade Show will be from 1-6 p.m. on Friday, Feb. 14. The exposition will be open to attendees from 9 a.m. to 5 p.m. on Saturday, Feb. 15, and Sunday, Feb. 16, and from 9 a.m. to 1 p.m. on Monday, Feb. 17. Spouse Program activities will be scheduled Friday, Feb. 14 through Sunday, Feb. 16.

Allied association programs will include the Golf Course Builders of America session on Saturday, Feb. 15; the American Society of Golf Course Architects session on Sunday, Feb. 16; and the USGA Green Section program on Monday, Feb. 17.

GCSAA's annual membership meeting and election will be held Monday, Feb. 17. That evening, the banquet and show will provide a festive closing for the week's events.



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## Some Thoughts on '91 N.M.T.M.A. Outings

by DAVID LITTLE

*C.G.C.S., Huron Breeze Golf & Country Club*

Summer is upon us here on the sunrise side. But for the ninth time out of the last ten years we have missed spring. We either stay cold with Northeast winds off Lake Huron or heat up with Southwest winds across the state. This year was a mix of both with 40's and 50's with 20° wind chills or mid and upper 80's to 90 degrees. I miss the 60's and 70's and the smell of spring.

What a great start to our N.M.T.M.A. meeting schedule, playing Crystal Downs C.C. and the Monarch at Garland. I would like to thank both clubs for the opportunity to play and commend both Mike and David on the great condition their courses were in when we met.

Playing them made me realize something I have been trying to convey to my board of directors. Just like apples and oranges, not all golf courses are the same. Each course is unique in its challenges and resources. We can only manage them to the best of our abilities with the resources at hand., but with the dedication as professionals and members of N.M.T.M.A., we can produce the best possible facilities.

I look forward to hosting the October meeting when you all are invited to enjoy the challenges of the 'Breeze'.



## GCSAA's 65th Anniversary Celebration To Include Formal Dedication Of New Headquarters Building

GCSAA will celebrate the association's 65th anniversary with the official dedication of its new headquarters building in Lawrence, Kansas, on September 6 & 7, 1991. All GCSAA members are invited.

The celebration kicks off with a golf event and barbecue on Friday, September 6. Formal dedication ceremonies will take place on Saturday, September 7. Several hundred visiting superintendents, political and industry VIPs, local Chamber of Commerce dignitaries, the media and other guests are expected to attend. Orientation presentations and building tours will be part of the dedication ceremony.

Complete information on the dedication weekend and a registration form for the weekend's activities were included in the Feb./March issue of *Newsline*. The breakfast, barbecue and dedication ceremonies require an RSVP by August 9, 1991.

The headquarters building is located one mile west of GCSAA's old headquarters. The address is 1421 Research Park Drive, Lawrence, Kansas, 66049-3859.

For further information, contact the GCSAA communications department at (913) 841-2240.

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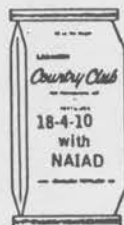
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# 1991-92 CALENDAR OF EVENTS

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	8-11	PGA Championship, Crooked Stick, Indianapolis, IN
	12	NMTMA, Thunder Bay, Hillman
	12-13	Michigan Senior Open, Michaywe GC, Gaylord
	19-21	First of America Michigan PGA Championship, Indianwood Golf and Country Club, Lake Orion
	23-25	Michigan Bell Showdown, Grand Traverse Resort, Bear, Traverse City
SEPT.	TBA	Mid-Michigan, MTF Benefit Day
	4	West Michigan, MTF Benefit Day, Gull Lake View, Gull Lake
	9	NMTMA, Shanty Creek Resort, Mancelona
	16-21	US Senior Amateur, Crystal Downs CC, Frankfort
	22	MSU Field Day
	26-29	Ryder Cup, Ocean Course, Kiawah Island, SC
OCT.	3	NMTMA, Huron Breeze, AuGres
	7	Michigan Border Cities G.S.A., MTF Benefit Day, Four Sites

## Genetic Work Wins \$12,000 Musser Scholarship for Tennessee Turf Student

MITF News Release

Developing techniques to transfer desirable traits from one plant to another has earned a \$12,000 scholarship for a 26-year-old doctoral candidate at the University of Tennessee in Knoxville.

James E. Bond, a native of England, was awarded the 1991 Musser International Turfgrass Foundation's graduate scholarship to complete studies that are "of tremendous benefit to turfgrasses," according to Dr. Lloyd M. Callahan, a University of Tennessee professor in charge of a DNA research program in the Department of Ornamental Horticulture and Landscape Design.

As a direct result of Bonds work, "highly desirable traits such as hardiness, herbicide resistance, disease resistance, among others, can be introduced into desired turfgrasses that do not possess this trait," wrote

Callahan in nominating Bond for the scholarship.

"This technology is essential for genetic engineering of plants and the related improvements of crop species," echoed Dr. Peter M. Gresshof, who holds the Racheff Chair of Excellence in plant molecular genetics at the University of Tennessee. "(Bonds) progress has been excellent despite the intellectual and scientific challenge of the research."

The Musser International Turfgrass Foundation was formed by graduates of the turfgrass programs at Pennsylvania State University to fund basic turfgrass research through fellowships to outstanding graduate students completing their doctoral work in turfgrass science. It honors the late Burton Musser, turfgrass researcher and educator who developed Penncross creeping bentgrass during his four decades at Pennsylvania State.

The organization is funded primarily by contributions from Penn State alumni and grants from companies in the turfgrass industry. This year, the association sought donations from golf course superintendent associations and three responded: Midwest, West Virginia and Florida.