

**Table 1 (cont): Mean snow mold severity, turf quality, and turf color assessed on May 8<sup>th</sup>, 2013 at Wawonowin CC in Champion, MI.**

Treatment	Rate	Application Timing <sup>a</sup>	Disease Severity <sup>b</sup>	Turf Quality <sup>c</sup>	Turf Color <sup>d</sup>	
55	Civitas Harmonizer Trinity Trinity	8.0 FL OZ/1000 FT2 0.5 FL OZ/1000 FT2 1.0 FL OZ/1000 FT2 0.5 FL OZ/1000 FT2	Early/Late Early/Late Early Late	11.3def	5.8e-h	0.607a
56	Civitas Harmonizer Daconil Ultrex Chipco 26GT	8.0 FL OZ/1000 FT2 0.5 FL OZ/1000 FT2 5.0 OZ/1000 FT2 4.0 FL OZ/1000 FT2	Early/Late Early/Late Late Late	10.0def	5.8e-h	0.670a
57	Civitas Harmonizer Concert II	8.0 FL OZ/1000 FT2 0.5 FL OZ/1000 FT2 5.5 FL OZ/1000 FT2	Early/Late Early/Late Late	21.3cde	5.5fgh	0.637a
58	Civitas Harmonizer Instrata	8.0 FL OZ/1000 FT2 0.5 FL OZ/1000 FT2 5.5 FL OZ/1000 FT2	Early/Late Early/Late Late	8.8ef	6.5b-f	0.649a
59	Civitas Harmonizer Chipco 26GT Daconil Action	8.0 FL OZ/1000 FT2 0.5 FL OZ/1000 FT2 4.0 FL OZ/1000 FT2 5.4 FL OZ/1000 FT2	Early/Late Early/Late Late Late	7.5f	5.8e-h	0.644a
60	Civitas Harmonizer	14.5 FL OZ/1000 FT2 4.0 FL OZ/1000 FT2	Early/Late Early/Late	27.5c	5.3gh	0.576a
61	QP TM/C QP Iprodione QP Propiconazole Foursome	6.0 OZ/1000 FT2 4.0 FL OZ/1000 FT2 2.0 FL OZ/1000 FT2 0.5 FL OZ/1000 FT2	Late Late Late Late	0.0f	7.5ab	0.659a
62	QP TM/C QP Iprodione QP Tebuconazole Foursome	6.0 OZ/1000 FT2 4.0 FL OZ/1000 FT2 0.6 FL OZ/1000 FT2 0.5 FL OZ/1000 FT2	Late Late Late Late	0.0f	7.8a	0.629a
63	QP Iprodione QP Tebuconazole Foursome	4.0 FL OZ/1000 FT2 1.1 FL OZ/1000 FT2 0.5 FL OZ/1000 FT2	Late Late Late	0.0f	7.3abc	0.629a
64	QP Enclave Foursome	8.0 FL OZ/1000 FT2 0.5 FL OZ/1000 FT2	Late Late	0.0f	7.5ab	0.670a
65	Turfcide 400	10 FL OZ/1000 FT2	Late	3.8f	6.5b-f	0.649a
66	Chipco 26GT Daconil WeatherStik	4.0 FL OZ/1000 FT2 5.5 FL OZ/1000 FT2	Late Late	6.3f	6.0d-g	0.678a

<sup>a</sup>Early fungicide treatments were applied on Oct. 8<sup>th</sup>, 2012 and late treatments were applied on Oct. 30<sup>th</sup>, 2012.

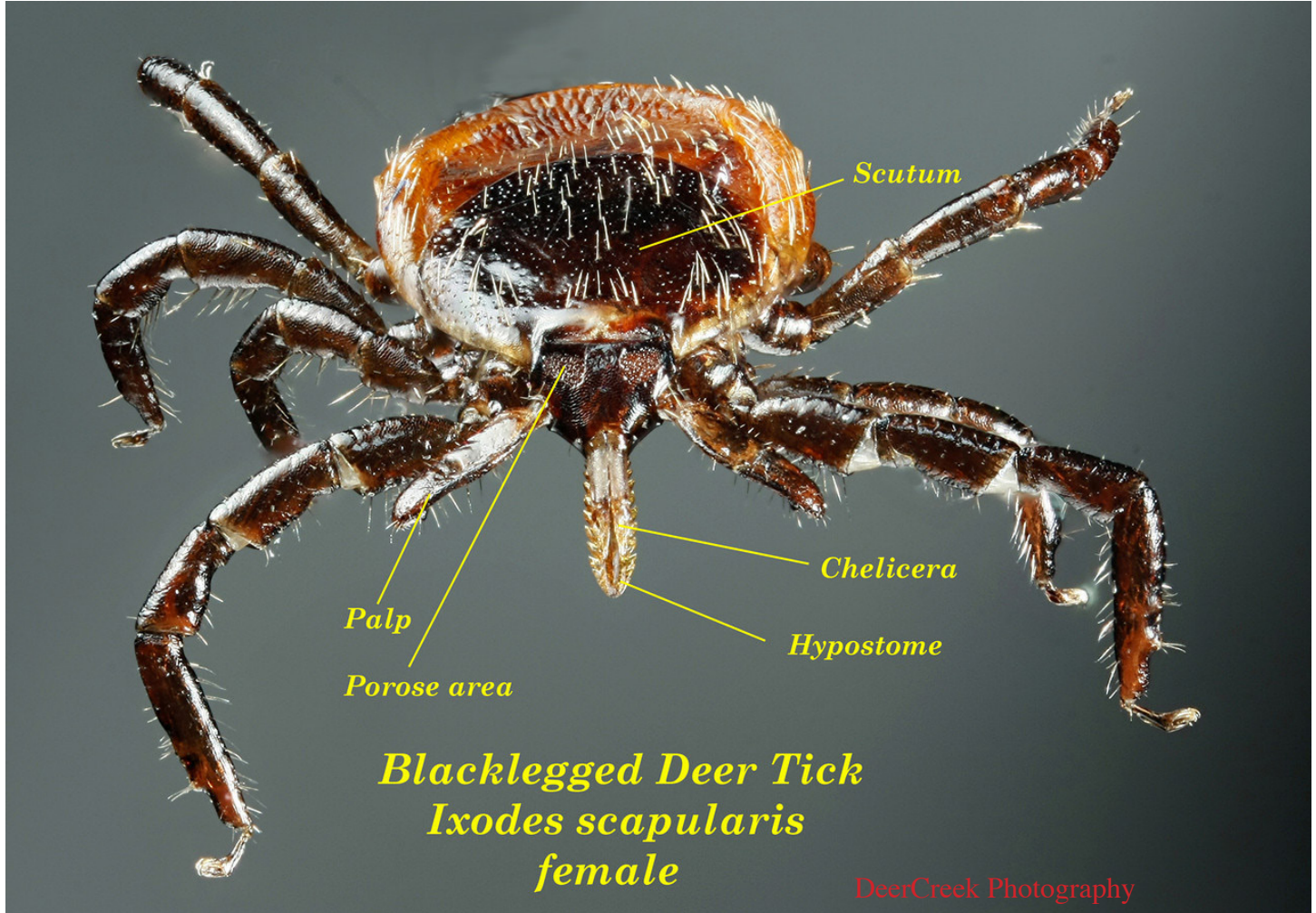
<sup>b</sup>Mean percent diseased area assessed on May 8<sup>th</sup>, 2013.

<sup>c</sup>Quality was visually assessed where 1 = dead, 6 = acceptable, 9 = dark green.

<sup>d</sup>Color was assessed using a TCM 500 NDVI Turf Color Meter from Spectrum Technologies®.

# Tick Tock; Tick Borne Diseases a Matter of Time

By Jamie Bezanson, Superintendent at Oneka Ridge GC



**“I thought I was going to die!”**

June 1st, 2013 was an ordinary Saturday, I was getting prepared to host some friends over for a back yard barbeque and show them around our family’s new home. Around 1:00 P.M., I put my 2 year old daughter down for

a nap and was feeling kind of fatigued and thought it would be a great time to grab some Z’s. During the evening I began to shiver and shrugged it off as being chilled due to the unseasonably low temperatures. After everyone departed I hurried to get under the covers of my bed and warm my body. As I wrestled with my blankets and tried to warm up I realized I had never felt this cold before and questioned, what was going on in my body? Was this it? Am I taking the big one?

The next morning I woke and could not get out of bed, I had a fever and headache, my body ached and I was shivering. I was in bed for all but about an hour of Sunday. Monday I was disappointed when I woke up again to find my health was no better. I still had a headache, body aches and was still shivering. I was needless to say very concerned with my condition but thought I would give it one more day to see if it would improve.

On Tuesday the sun still came up and I still had the same symptoms. I pulled my clothes on and drove myself to work to get payroll done. The drive that morning took every bit of focus I had and was probably not a great decision. I arrived back home and went back to sleep and woke up when my wife called at 11:00 am saying she was very concerned and she had made a doctor's appointment for 11:50 am. I painfully took a shower and made it to the clinic.

I explained all my symptoms to the Doctor and told him I thought I either had the influenza, a virus or tick bite. He took my temperature at 102 degrees and ruled out influenza because I did not have a cough or a sore throat. He said if it is a tick bite it could be either Lymes or Ehrlichia. The only way to find out was to draw

blood test to see which one it was. The results would take 3-4 days and he explained that if I took amoxicillin it would not cure Ehrlichia but if I took Doxycycline it would cure both Lymes and Ehrlichia. I did not want to risk being sick for 3 or 4 more days so I chose Doxycycline. I was able to take two doses of Doxycycline that day. I woke up at midnight with an excruciating headache so I took two Tylenol and went back to bed. At 2:00 A.M. I woke to find myself completely drenched and my headache was gone. My fever had left and for the first time in 4 days I thought I may beat this disease.

I did not make it in to work that Wednesday but by that night I was able to have dinner with my family and could see improvement. My health gradually improved and by the weekend I started to feel normal again. Over the next week my condition continually improved and I regained all my strength. The Doxycycline made my skin very sensitive to the sun which even though the doctor told me it would, I had to learn the hard way. After a couple painful sunburns I purchased some SPF 50 to protect my skin from the big orange ball in the sky.

The following Monday the Doctor called with the results which were that the tests came back negative for

Lymes and positive for Ehrlichia. I had never heard of Ehrlichia before and I hope to never have it again but here are a few specifics that I learned. It is transmitted by a bite of an infected black legged or deer tick and symptoms typically begin one to three weeks after exposure. Symptoms include fever, muscle pain, severe headache, fatigue and chills. Less frequent symptoms include nausea, vomiting, acute weight loss, diarrhea, joint pain, mental confusion, cough, rigors, and skin rash. A tick bite may leave a bull's-eye or mark only 50% of the time and can be diagnosed by certain blood tests. Both Ehrlichia and Lymes can cause long term side effects if left untreated. These side effects may not show up for months or even years.

I didn't notice any bite marks or find the tick that bit me but one observation that I did find interesting was that I had a sore back for a month prior to any symptoms showing up. After taking the antibiotic my back pain went away and I haven't felt this good in a long time.

If anyone isn't feeling themselves I would recommend going to the doctor and getting checked out. The possibility of having long term side effects was enough to scare me.



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## *CDC: Lyme disease rates 10 times higher than previously reported*

*Atlanta.* Preliminary estimates released by the Centers for Disease Control and Prevention indicate that the number of Americans diagnosed with Lyme disease each year is around 300,000. The preliminary estimates were presented Sunday night in Boston at the 2013 International Conference on Lyme Borreliosis and Other Tick-Borne Diseases.

This early estimate is based on findings from three ongoing CDC studies that use different methods, but all aim to define the approximate number of people diagnosed with Lyme disease each year. The first project analyzes medical claims information for approximately 22 million insured people annually for six years, the second project is based on a survey of clinical laboratories and the third project analyzes self-reported Lyme disease cases from a survey of the general public.

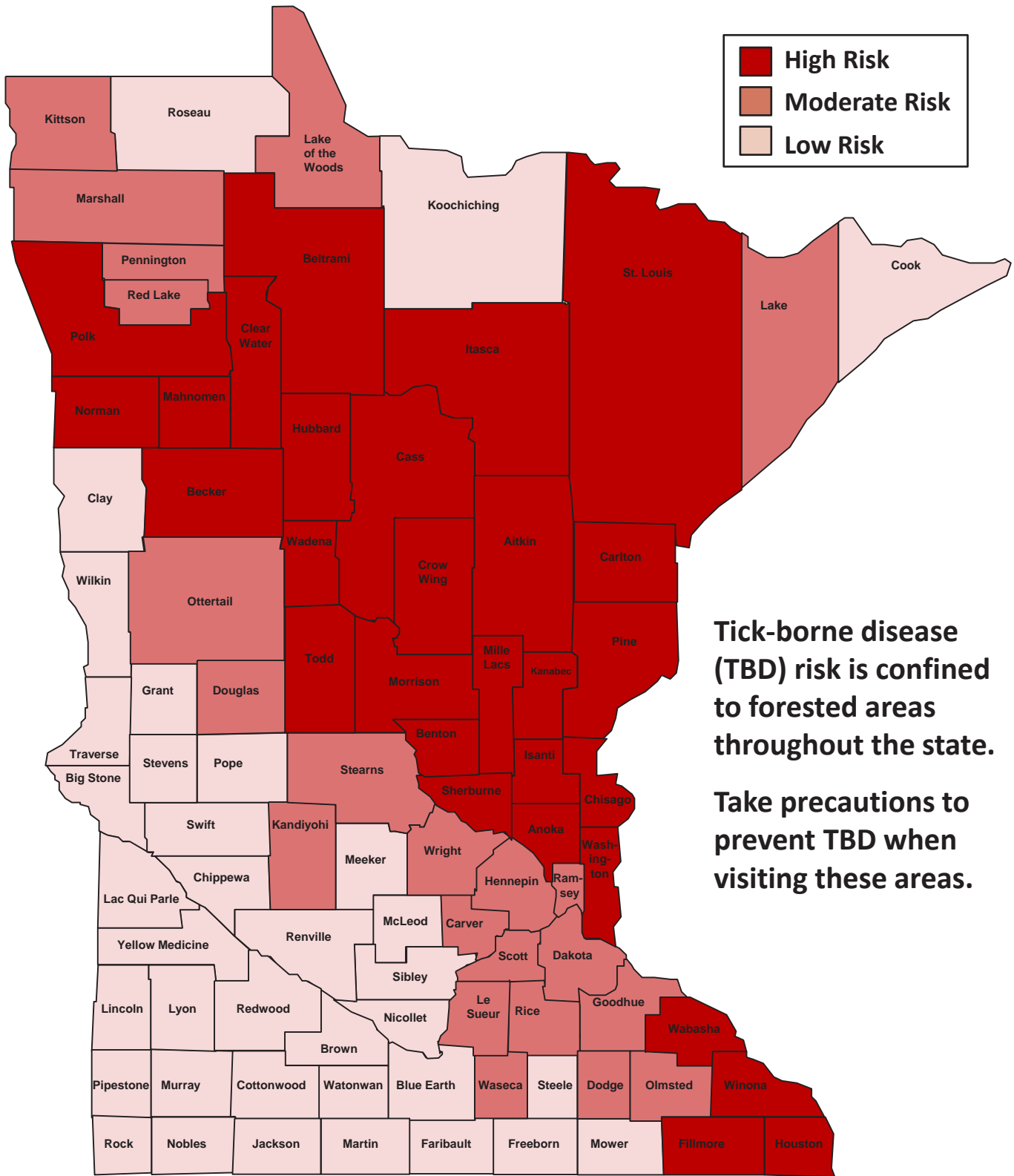
Each year, more than 30,000 cases of Lyme disease are reported to CDC, making it the most commonly reported tick-borne illness in the United States. The new estimate suggests that the total number of people diagnosed with Lyme disease is roughly 10 times higher than the yearly reported number. This new estimate supports studies published in the 1990s indicating that the true number of cases is between 3- and 12-fold higher than the number of reported cases.

“We know that routine surveillance only gives us part of the picture, and that the true number of illnesses is much greater,” said Paul Mead, M.D., M.P.H, chief of epidemiology and surveillance for CDC’s Lyme disease program. “This new preliminary estimate confirms that Lyme disease is a tremendous public health problem in the United States, and clearly highlights the urgent need for prevention.”

CDC continues to analyze the data in the three studies to refine the estimates and better understand the overall burden of Lyme disease in the United States and will publish finalized estimates when the studies are complete. Efforts are also underway at CDC and by other researchers to identify novel methods to kill ticks and prevent illness in people.

# Minnesota Tick-borne Disease Risk\*

\*Based on average incidence (cases/100,000 population) of Lyme disease and human anaplasmosis cases in Minnesota, 2007-2011



**Tick-borne disease (TBD) risk is confined to forested areas throughout the state. Take precautions to prevent TBD when visiting these areas.**



Minnesota Department of Health – Infectious Disease Epidemiology, Prevention and Control Division  
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## How Not To Remove Ticks

### Don't Remove Ticks With Your Fingers.

In many cases a tick is likely to be carrying pathogens such as lyme disease, ehrlichiosis and others that are harmful to humans and pets. Tick saliva or blood is something you don't want on your skin. Pulling on a tick, even with tweezers, can tear the mouth parts from the body of the tick and leave embedded parts in the host.

### Don't Squeeze, Crush or Squash A Tick.

This can force spirochete and other infective body fluids through the mouth parts of the tick into the host. Don't Apply Substances To A Tick. Applying any substances, such as petroleum jelly, fingernail polish remover, repellents, or a lighted match that upset or harm the tick almost always cause the tick to vomit the contents of its stomach back into the host. No matter how badly a tick may want to remove itself, it is not capable of doing so quickly. Ticks can live without air for long periods; attempts to smother it can allow disease transmission for hours.



*You may or may not have the typical “bull’s eye” rash often associated with lyme disease.*

# Minnesota Golf Rounds Fore Research Huge Success

The last certificate for golf sent, and final check tabulated, this year's Minnesota Golf Rounds Fore Research generated over \$27,500 for research projects at the University of Minnesota. These funds, \$13,000 over the 2012 drive, are created through the generous contributions of tee times at mostly private or high-end public facilities for sale to the public. This dramatic increase over recent campaigns can be attributed to several factors.

For the last 24 years, specific tee times were available only the first week of June. In 2013 tee time certificates, including carts, were offered for use through the season. The recently reactivated Minnesota Golf Course Superintendents' Association Research Committee also did a stellar job of

raising additional certificates through a phone call barrage to fellow turf managers. And, of perhaps greatest note, the MGCSA partnered with the Mid-West Chapter of the CMAA, the Minnesota Chapter of the PGA and the Minnesota Golf Association for additional promotion amongst their ranks.



Monies generated through the Rounds Fore Research program are used to keep the University of Minnesota's Turfgrass Research, Outreach and Education Center a viable destination for current and future turf studies. The additional funding created in 2013, and for

the next couple of years, will be used to directly support the new horticulture pathologist at the U of M.

The Minnesota turf industry has been missing a pathologist since Dr. Jon Powell left the University of Minnesota several years ago. In 2013 a horticultural pathologist position was created in the College of Food, Agri-



cultural and Natural Resources. The search process, which the MGCSA was active in, generated an excellent candidate for the position; Dr. Angela Orshinsky from the University of Guelf where she produced studies on *Sclerotinia homeocarpa* in bent grass amongst other turf related topics. As a new Extension Specialist with the University, and one the turf industry will be closely allied with, the

MGCSA Board of Directors strongly supported contributing start up funding to facilitate the transition into Dr. Orshinsky's new role.

None of the research or University support would be possible without the help of the following clubs. Thank you for your consideration and generosity.

**Brackett's Crossing Country Club**  
**Dellwood County Club**  
**Edina Country Club**  
**Hazeltine National Golf Club**  
**Golden Valley Golf and Country Club**  
**Hillcrest Golf Club of St. Paul**  
**Indian Hills Golf Club**  
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**Medina Golf and Country Club**  
**Mendakota Country Club**  
**Midland Hills Country Club**  
**Minnesota Valley Country Club**  
**North Oaks Golf Club**  
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**Wayzata Country Club**  
**The Jewel Golf Club**

***Thank You For Your Support***



# Within the Leather

by David Kazmierczak, CGCS

What a glorious day it was on Tuesday, August 13th 2013. The kind of day any golf course superintendent would wish for if hosting an event. Luckily for me and my crew, this was the day we hosted the MGCSA Championship.

Not that the weather was much different than the previous couple weeks. If you are into high temperatures in the mid 70's and low humidity coupled with glorious sunshine, Minnesota has been right up your ally lately. But compared to what the day could have been like, the weather just could not have been better to prepare a golf course for tournament play, or to play in the tournament itself.

My group started on the 10th hole, and after a quadruple-bogey on the 11th I pretty much decided to hell with it- my championship pursuit lasted all of about 15 minutes - and proceeded to relax, enjoy the fine company I was with and enjoy the day. As fun as it was to play, what

happened after was better.

I can't imagine a more satisfying feeling as a professional, as I experienced after the tournament, and that is why I am bringing this event up. After the round, I received many, many compliments on the course itself, the conditioning, the set-up, the friendliness of the inside staff and numerous other things. We have received these kinds of compliments before at various times and in various ways, but this was quite special.

This was from my peers.

This was from guys for whom I both respected and admired. Well wishes from old friends and new acquaintances alike. This was from people who know golf courses. This was from people who understand what it takes to accomplish a solid product in this business, and took time out of their busy schedule to come play our course and support the MGCSA as well. What a fine time we all had.

Now I would be remiss at this point not to mention the fact that there were only 48 of us that were able to play in the championship. This number, to be frank, is quite low. I fully understand why so many