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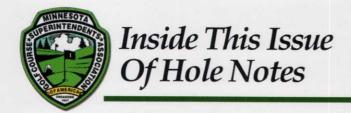
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About the Cover

Jeff Pint will defend his MGCSA Championship title at Hillcrest Golf Club of St. Paul on August 28. Thomas Schmidt is the host Superintendent at Hillcrest Golf Club of St. Paul.

Upcoming MGCSA Schedule

Tuesday, August 28 MGCSA Championship Hillcrest Golf Club of St. Paul Host Superintendent: Thomas Schmidt

Thursday, September 13
University of Minnesota Field Day
University of Minnesota St. Paul Campus
Hosts: Dr. Brian Horgan and Larry Vetter

Monday, September 24
Harold Stodola Research Scramble
The Jewel Golf Club, Lake City
Host Superintendent: Doug Mahal, CGCS

Monday, October 8 MGCSA Fall Mixer Le Sueur Country Club, Le Sueur Host Superintendent: Thomas Meier

Tuesday, December 4
MGCSA Awards & Recognition Banquet
Prestwick Golf Club, Woodbury
Host Superintendent: Dave Kazmierczak

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PRESIDENT'S MESSAGE



One Hail of a Story

By James Bade

On June 2, a lazy Saturday afternoon, I sat at home listening to a nice gentle thundershower thinking a nice rain like this is rare now days. (Of course today is June 26, 2007 and it hasn't rained since). On my way to work the next day I was about two blocks from the club when I notice just a ton of leaves on the highway. I remember thinking, did the County come through and do some pruning. As I made a right hand turn towards the club there were leaves everywhere. Then as I looked into the golf course I saw something white, was it plastic or something else that blew into the golf course? Then when I arrived and saw the gardener's face the mystery was becoming clearer. It had hailed!

Eighteen hours after the storm there were still piles of hail through out the golf course. The hail wasn't large but the volume was great. I heard the course looked like winter, there were 2-4 inches of hail and rivers of it left behind by the 1.60 inches of rain. Leaves were stuck to the clubhouse like a hurricane had gone through. In my lifetime I have never seen any thing quite

like it. There were so many leaves on the ground that it smelled like corn silage. With a slight bit of optimism my U of M intern had the quote of the day; "we have slow release water."

The Somerset Crew will be mulching leaves and raking up pine needles all summer as the damaged dying leaves and needles fall off. Unfortunately, my two gardeners had to replant the annual flower garden and cut back the poor hostas, which looked worse than Swiss cheese. What makes the story interesting is that Mendakota Country Club is but a mile away and Southview maybe three miles and to my knowledge they didn't receive any hail and half the rain. It was Somerset's turn for adversity from Mother Nature because about 10 years ago those two clubs lost close to 100 trees each from a storm when we lost one and some branches.

Here are three quotes I would like to share with you from a calendar that I received.

Perseverance: We conquer every challenge by taking it one step at a time.

Focus: The ability to believe in your goal even as your path twists and turns. Optimism: seeking the positive in every situation awakens golden opportunities.

Whatever your challenges are this year be resilient and persevere. And if your trails seem too overwhelming there is a whole Association of MGCSA members willing to lend a helping hand.

Due to a scheduling conflict I was unable to attend the Scholarship Scramble. I want to thank Rick Traver and Scottie Hines for filling in for me. Thank you Lee Mahnke for hosting (Continued on Page 27)

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HOLE NOTES

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Hillcrest Golf Club of St. Paul Set to Host The MGCSA Championship on August 28

Superintendent Thomas Schmidt and his staff look forward to hosting the 2007 MGCSA Championship on August 28.

Designed by Bill Calpepper and constructed in 1921, Hillcrest Golf Club of St. Paul was St. Paul's first public golf course. The results were awfully good. Unique putting surfaces add to the challenging layout throughout the property. The course features rolling hills which create very few flat fairway lies.

In 1945, Hillcrest became a private club and it remains that way today as one of St. Paul's few private golf clubs.

The Par 72 course measures 6,350 yards.

Thomas Schmidt has been Superintendent at Hillcrest for the past seven years. When away from the course, he likes to golf, hunt, fish and coach his kid's hockey, baseball and fast-pitch softball teams.

Previously, Schmidt worked at Moorhead Country Club for three seasons as Superintendent before his current role as Superintendent at Hillcrest Golf Club of St. Paul.

Thomas and his wife Kitty have three children: 10-year-old Joe, 9-year-old Hanna and 7-year-old Jeffery.

Justin Kramer is Schmidt's First Assistant. Justin is married to Katie and they have an 8-month-old boy named Jake. Justin worked at Moorhead Country Club for six seasons — three as crew worker while getting his degree from North Dakota State University and three years as an Assistant Superintendent.

Justin's hobbies include camping, cooking, fishing and golfing.



LOOKING FORWARD TO THE CHAMPIONSHIP are, from left to right, Equipment Manager Jaime Jirik; First Assistant Justin Kramer; Second Assistant Chad Setter, and Hillcrest Superintendent Thomas Schmidt.



THE GROUNDS STAFF AT HILLCREST GOLF CLUB OF ST. PAUL

Photo by Superintendent Thomas Schmidt

Natural Organic Fertilizer Considerations

By Stanley J. Zontek, Patrick O'Brien, Bob Brame and Jim Skorulski

(Editor's Note: Each month an affiliate member is invited to write or supply an article from a question they have been asked by a Superintendent. If you would like to supply an article, please send the article and a head and shoulders photo to scott@mgcsa.org.)

Motherhood, apple pie, and the American flag generate warm, fuzzy feelings for most Americans. Concepts like keeping the golf course firm, dry, and fast convey similar feelings to golfers. For turf managers, it's solid management, using only enough water, fertilizer, and plant protectant chemicals to grow healthy grass. There are no arguments to any of these points. The same "good feelings" are often extended to using natural organic byproducts on golf courses.

Turf managers have many options for fertilizing their turf. One of these options is the use of "natural organic" fertilizers. Unfortunately, not all natural organic (NO) fertilizers are the same. Much has been written and discussed within the industry about these products, and many turf managers get a good feeling about using them. After all, aren't they good for the environment? Aren't they a good way to use up all those abundant byproducts of our society? Don't they help discourage disease? Don't they help build up the beneficial microbes and organic content of soils, especially those (perceived) sterile soils used in green construction? Isn't using these products . . . well . . . good? The answer to all these questions is "yes and no."

Here is our disclaimer. It is important to state that these are not bad products.

That said, they are not wonder products. They have their strengths and weaknesses, just as any category of products does. The purpose of this presentation is to make golf course superintendents better consumers. That is, to ask the right questions about the NO products used on the golf course in general and on putting greens in particular.

THE ORGANIC MYTH

Keep in mind the fallacy, or myth, of organic nitrogen. To the grass plant, it does not matter where the nitrogen comes from. The plant cannot distinguish (or use) organic or inorganic nitrogen differently. In fact, nitrogen can be taken up by the grass plant only in an inorganic form. This occurs when the soil microbes transform organic forms of nitrogen into the inorganic form the grass plant can use.

Thus, these NO products are used for reasons other than to provide a "better form of nitrogen" to the grass plant. As stated above (and as common sense would suggest), not all natural organic products are the same. Far from it. Among other things, one aspect of these products that makes them different from each other is their mineral or ash contents. The table below shows some significant differences between three commonly used (and for the purpose of this presentation, unnamed) NO fertilizers in one very important area of concern: their ash content.

WHAT IS ASH?

As defined by Dr. Bob Carrow, University of Georgia, "Ash is any inorganic mineral attached to any organic material. This could include sand, silt, clay

Ash Test Analysis¹

Product ²	Percent Ash
Natural Organic Product A	50.8%
Natural Organic Product B	35.1%
Natural Organic Product C	26.0%

¹Analysis by Dr. Andy McNitt, Penn State ²Random samples collected from superintendents' stocks.

(and clay binders), and nutrient salts." Ash is the residual after the organic matter is combusted or burned off as carbon dioxide. It is not that "inorganic" is in itself a problem. Nutrient salts are inorganic and can test as ash. What can be a concern is the accumulation of extra ash, extra fines, in the upper profile of a putting green, posing potential consequences for the turf manager. Sand-based rootzones can accumulate silt and other fines from wind, flooding, topdressing material, and other means. The overuse of these NOproducts could be one avenue where this process is accelerated. Today we are using denser turfgrasses on our greens, be they bentgrass, bermudagrass, or even paspalums. Also, the older and more open grasses are being dwarfed, made denser, by the use of growth regulators. Extra ash

in a fertilizer can only aggravate an all-too-common concern in the upper profile of a green — too



Chris Hoff Precision Turf & Chemical

much density, too much "stuff" that holds water, shortens roots, encourages moss and algae, etc. While a certain amount of organic matter accumulates, the organic/thatch interface of this 10+-yearold putting green looks questionable. Let's do some quick math. Let's assume that a hypothetical natural organic fertilizer contains, as an extreme, 50 percent ash and has a nitrogen content of 5 percent. When a fertilizer of this analysis is applied at a rate of 1 lb. of actual nitrogen per 1,000 sq. ft., 20 lb. of NOfertilizer is applied per 1,000 sq. ft. This equates to 10 lb. of mineral ash, or "stuff," per 1,000 sq. ft. True, 5 percent of this mineral content could be the fertilizer salts, but the rest is ash. This may be cause for concern when a turf manager applies 2 lb. of nitrogen per year as a NO fertilizer, since 20 lb. of ash (fines and fertilizer salts) is also being applied. This could be a red flag or, at best, a yel-

Excess ash can exacerbate all sorts of problems that already exist in the upper profile of a putting green. Such a green may be under-aerated and under-topdressed, and where excess moisture exists through irrigation or rainfall, problems can develop. When the sealing-off of the surface of a green occurs, extra work is needed to aerate the plugged zone, remove the cores, and topdress to fill the holes and ultimately to dilute the zone of fine particles, regardless of where they originated. Therefore, our suggestion is that these NO products can and perhaps should be used in moderation and only after the superintendent knows more about the physical characteristics of the NO fertilizer being used.

GENERAL USAGE GUIDELINES

• As a general rule of thumb, the best release rates from these products tend to occur in mid to late spring and early fall.

(Continued on Page 7)

Natural Organic Fertilizer-

(Continued from Page 6)

While many of these fertilizers do contain quick-release nitrogen, some of the nitrogen is also slow-release, requiring microbes to break down the nutrients into a plant-usable form. A general guideline suggests that for every 18°F temperature rise between 32°F to 95°F, soil microorganism activity increases by 1.5 to 3.0 fold; thus, nitrogen release from organic sources in the hot, humid summer months can be much more rapid. Microbes need good soil aeration to work.

• Summer usage can increase algae and result in maximum NO fertilizer release rates. This could be either good or bad. It depends on what the turf manager wants. After all, it is during these conditions when the microbes that release the nutrients should be most active. This can result in a difficult-to-predict release curve. Increasingly, superintendents are relying on soluble, spoonfeeding programs to maintain turf at this time of the year. The bottom line is that when soil temperatures are less than 55°F, these fertilizers tend to exhibit slow release rates. When soil temperatures are above 80°F, release can be rapid.

 Soil pH levels below 5.5 can affect release curves because of lower microbial activity.

 New golf course construction. Natural organic fertilizers (and composts) incorporated into new soils can be beneficial. In fact, in the USGA Green Section's Tips for Success publication, part of the pre-plant fertility in new construction is recommended to be from a natural organic fertilizer.

· Recycling. Golf courses are wonderful sites to utilize and recycle byproduct materials, be they wastewater, natural organic

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fertilizers, and composts.

· High bulk and micronutrients. These low analysis products allow the turf manager to spread low rates of nitrogen as a granular fertilizer, also containing a long list of micronutrients.

CONCLUDING THOUGHTS

· Do not confuse natural organic fertilizers with composts. They are different. Natural organics generally have higher nutrient contents that are listed on the label as fertilizer and, thus, must meet fertilizer laws regulating nutrient content claims. Composts do not claim a specific nutrient content and are usually added to a soil to enhance organic matter content rather than serve as a fertilizer.

· Develop a buyer's checklist. What are the strengths and weaknesses of the products available to you? The information will help determine when and where to use these materials to their best advantage.

· Cost per pound of nitrogen. The nitrogen contained in natural organic fertilizers can be very expensive. Price it out.

· Review the expected release curves for any fertilizer product you plan to use, including NO fertilizers. Which product is right for your need? Be sure to use those products at the right time of the year to accent their strengths and negate their weaknesses.

• If you are committed to using large amounts of composts and natural organic products, adjust your golf course maintenance and management programs to mitigate concerns about the potential "fines," the ash, they may contain. Some additional aeration and topdressing will have to be scheduled through the

 Research is unclear on whether or not NO fertilizers suppress disease. One study showed that some products reduced the number of S. homoeocarpa (dollar spot) infection centers for two consecutive years, some products had no effect, and some fertilizers used in these tests resulted in an increase in dollar spot infection centers. Literature reviews are full of these contradictions. Clearly, general claims for disease suppression may vary from product to product due to the wide range of different natural organic products available to our industry.

· As Dr. Frank Rossi stated in his article from the September/ October 2004 issue of the USGA Green Section Record, "There are no silver bullets" and "superintendents need to spend more time learning basic science." He is right. When in doubt, always ask questions, be it of your regional USGA Green Section agronomists or scientists from state land-grant universities. Unbiased opinions along with applicable research are the foundation of the USGA Green Section and state university research and extension programs. The purpose of this article is to help golf course superintendents be better consumers. Natural organic fertilizers have been part of our industry for decades. These products provide the turf manager with a low-analysis, easy-to-spread, environmentally sound material that can be used for all sorts of reasons, from supplying the grass with micronutrient-rich, low-nitrogenanalysis fertilizers - to melting ice and snow! Nevertheless, know the strengths and compensate for the weaknesses of any NO products that you use on your course. Where a possible concern exists, either use these products in moderation or on areas of the golf course where their possible weaknesses are of less concern. In other words, be a better consumer!

(Editor's Note: Stanley J. Zontek is director of the USGA Green Section's Mid-Atlantic Region, Patrick O'Brienis director of the Southeast Region, Bob Brame is director of the North-Central Region, and Jim Skorulski is senior agronomist in the Northeast Region.)

SUPERINTENDENT LANDS A BIG ONE IN SITKA, ALASKA

Just for the Halibut

By CHARLIE POOCH
Superintendent, Les Bolstad University of Minnesota Golf Course

harlie Pooch, Superintendent at the University of Minnesota Les Bolstad Golf Course, finally landed "a big one." After commenting to his wife the night before that he had never caught a big halibut and maybe this was the year, on May 23 while fishing with nephews Ben Baumann and Nate Obitz (captain and deckhand with Angling Unlimited), he brought in a 180-lb. halibut.

"Fishing in the waters of Sitka, Alaska has been an annual event for Charlie since the summer of 1996."

Fishing in the waters of Sitka, Alaska has been an annual event for Charlie since the summer of 1996. The first few years, in addition to his wife, he was accompanied by his sister and her husband who have since become summer employees of Angling Unlimited.

After telling his sister that there probably wouldn't be a fishing trip this summer because of events scheduled at the golf course, she suggested he come in May for the beginning of the fishing season.

Turned out to be a good decision.

1st Annual Alternative Turfgrass Meeting Takes Place at Big Fish GC

Thanks to all who attended the First Annual Alternative Turfgrass Discussion on Monday, June 11 at Big Fish Golf Club in Hayward, Wis.

With impending government regulations and our own personal aspirations to provide ideal golfing conditions has led many in the industry to seek alternatives.

- Tod Blankenship



Charlie Pooch, Superintendent at Les Bolstad University of Minnesota Golf Course, and his 180-lb. Halibut. Charlie caught the fish while in Alaska. Kind of makes you think twice about swimming in the ocean.



The green, green grass of home. Here is a soldier stationed in Iraq—a big sand box. He asked his wife to send him dirt (U. S. soil), fertilizer, and some grass seed so that he can savor the sweet aroma and feel the grass grow beneath his feet. When the men of the squadron have a mission that they are going on, they take turns walking through the grass and the American soil to bring them good luck. Notice that he's cutting the grass with a pair of scissors. Sometimes we are in such a hurry that we don't stop and think about the little things that we take for granted. Take time to remember our American soldiers who give and give so unselfishly for us.





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Musing the Minutes

MGCSA Board Meeting ~ April 30, 2007

By Scott Turtinen Executive Director



A MGCSA Board Meeting took place at Somerset Country Club in Mendota Heights on April 30, 2007.

Points of interest from that meeting include excerpts from the following reports:

Treasurer's Report

As of April 30, 107 members had not yet paid 2007 dues – 76 regular members and 31 affiliates.

President's Report

MGCSA President James Bade recently attended the MGA Forum, Dr. Donald White's retirement lunch and spoke at the Club Managers Meeting where he helped promote the MGCSA to other associations.

The City of Mendota Heights has voted to buy the Mendota Heights Par 30 golf course.

Business Office

Wisconsin GCSA sent a list of members to be invited to the 2008 Minnesota Green Expo that will be forwarded to MNLA's Bob Fitch.

Nineteen courses participated in the Turf Research Benefit Week in 2007 raising over \$10,000 for turf research.

2007 Event sponsorship is down considerably this year as 11 companies sponsored events compared to 23 in 2006.

Environmental Report

Jeff Vinkemeier contacted GCSAA about an environmental survey.

Water issues are presently going on in the state legislature. Water usage may require certification in the future.

An idea was brought up to have a legislative field day at the Troe Center about water and show the State what research is being done locally.

Fertilizer check-off is moving forward in the legislature.

Membership Report

New members were approved.

MTGF Report

An economist in Duluth is compiling results of the MTGF Economic Impact Study.

Public Relations Report

The Minnesota Turf Club is selling used golf balls on ebay. The MGCSA is still looking for golf ball donations.

Research Report

Goals for 2007 are to support the Troe Center. It costs \$98,000 to maintain the Troe Center. A motion to donate \$20,000 to help with Troe Center maintenance was approved.



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