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Sportsman's redesigned fine fescue bunker faces protect the green on this par 4 hole.

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Sportsman's Country Club, site of the MAGCS August Meeting delights residents of the Northbrook and surrounds with gentle rolling fairways and challenging greens.
Photo Credit: Luke Cella

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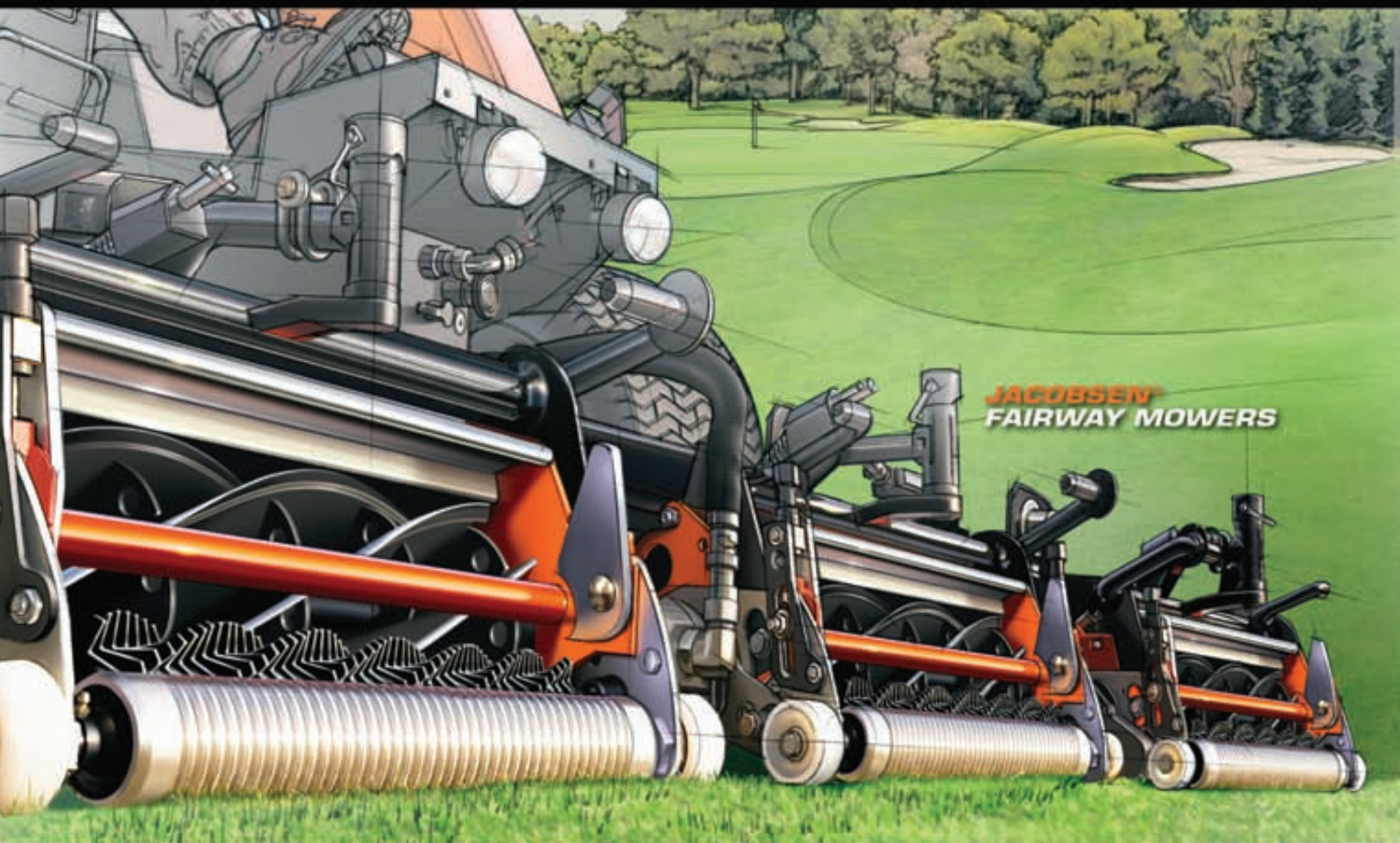


The Midwest Association of Golf Course Superintendents (MAGCS), founded December 24, 1926, is a professional organization whose goals include preservation and dissemination of scientific and practical knowledge pertaining to golf turf maintenance. We endeavor to increase efficiency and economic performance while improving and enhancing the individual and collective prestige of the members.

The MAGCS member is also an environmental steward. We strive to uphold and enhance our surroundings by promoting flora and fauna in every facet in a manner that is beneficial to the general public now and in the future.

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ON COURSE WITH THE PRESIDENT
Dave Braasch, Glen Erin Golf Club



MAGCS Financial Resources

With the arrival of summer we are all out of the office and on the course, hence this will be the shortest President's message in MAGCS history. This is in keeping with our most recent Board meeting, which was a record 54 minutes long, hardly worth my four-hour round trip. I am not implying that the Board isn't doing its job. We have simply become a lean, mean, efficient, technological machine (not to be confused with the George Foreman grill). June was a rough month. Mother Nature put many of us to the test to see how well we could handle excessive amounts of rainfall. Apparently some of us failed that test last August and had to take it again this year. Let's all hope that the rest of the season is better, so we can complete those projects that are piling up on us.

The purpose of this particular message is to inform you of the progress of the Financial Task Force Committee. To be quite honest, not a whole lot has been accomplished. As the President of your Association and the Chair of this committee I am taking full responsibility for the lack of evolution. This is about the time I expect Ed Braunsky to call and ask me to remove the latex glove from a gift pack I received at the Past Presidents Council meeting back in February and insert it . . . you know where I'm going with this. What I will do is let you know what is completed and summarize the MAGCS Portfolio.

The Financial Task Force was created to analyze the investments of the Association and to work closely with the financial advisor to make recommendations on the allocation of funds based on market activity and return. Included in this is the development of the Investment and Reserve Fund Policy, which is a guideline to assist in making the aforementioned decisions. The guideline includes, but is not limited to:

- Long and short term financial goals and needs of the Association
- Investment strategy
- Investment objectives
- Allocation of assets
- Performance evaluation

The blueprint for the development of the Financial Task Force was drawn in 1999 when the MAGCS Portfolio was set up, with the intent of having some excess dollars put in an investment account. The goal at that time was to keep a safety net of at least \$25,000 in cash, should the operating budget need additional funds. Any extra cash, once that goal was

achieved, would be invested in the market. The current breakdown of the portfolio is that approximately 42% of the investment is in cash and the remaining 58% in stocks (mutual funds) and bonds. Since its inception the portfolio has been growing at a rate of 5% annually. What does the future hold? There is much uncertainty in the short term market (next three years) with no real safe havens. The market continues to be volatile due to the current issues of high oil prices, home foreclosures, flat real estate market, new President, etc. The MAGCS portfolio will remain on the conservative side until the market begins to show signs of rebounding. If you have a knack for finances or investing and wish to be on the Financial Task Force Committee, please contact Luke Cella or me. We would be happy to have you on board. **-OC**

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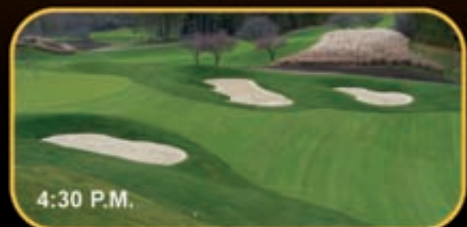
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Joe Schneider, *Black Sheep Golf Club*

Mike Siefken -N-



Since 2002, Michael Siefken has been at the helm of Sportsman's Country Club and the par 3 Anetsburger Golf Course. Located along busy Dundee Road, Sportsman's Country Club is a quick escape into a quiet urban setting. Built in 1931 and designed by architect Edward Dearie Jr., Sportsman's is a great addition to the Northbrook Park District. Dearie Jr. worked for Donald Ross, and it is evident after playing the golf course. The golf course hosts many leagues and the Northbrook Park District prides itself on offering this facility to their residents.

Mike caught the golf maintenance bug at Meadowbrook Country Club in Northville, Michigan, while on his summer breaks in high school. He loved working outside and decided to pursue a career in golf. While attending Michigan State University, he achieved his Bachelors degree in Science with an emphasis in Crop and Soil Sciences. Soon afterwards, Mike started at Calumet Country Club as an Assistant Superintendent. One year later he moved on to Skokie Country Club. Mike then moved on to Sunset Ridge Country Club before making the jump to Golf Course Superintendent at Woodstock Country Club. Mike stayed at Woodstock Country Club through the summer of 2001, before starting his tenure at Sportsman's Country Club. Mike has been a GCSAA member for 19 years and is a currently a director on the MAGCS board.

There have been many changes at Sportsman's under Mike's watch. From 2005-2006, Mike oversaw the renovation of the bunkers and greens. The course was split in half for the renovation completing one half in 2005 and finishing the rest in 2006. Both Wadworth and Ryan construction companies were used for the work but each followed the renovation plans by architect Rick Jacobsen. The course looks better than ever. All greens were regressed with A-4. The bunkers were rebuilt and now have fescue facing. While they were at it, they also re-contoured the fairways. Throughout the property you will see many no-mow natural areas that Mike has developed to cut down on mowing. In his stewardship to the environment, Mike has also designated areas around ponds that are not treated with plant protectants.

If that wasn't enough, Mike also oversaw the renovation of the Anetsburger Golf Course. Following architect Rick Jacobsen's plans, Bruce Company renovated the entire 9-hole course. To fin-

ish it all off, Mike helped on the design of the new 2.2 million maintenance building. During the design, Mike learned that there was more than meets the eye with building a new building. Dealing with permits and codes really gave Mike a better understanding of the building process. This building is the first step in the transformation of the entire clubhouse area. The old maintenance facility used to be a bowling alley and still stands on the property. Now that Mike and his crew have a new home, the rest of the renovation to the clubhouse and grounds can begin. The master plan includes removing the old now abandoned maintenance building and shifting the parking lot closer to the course.

When Mike gets away from the course, he spends time with his wife Kristin and 10-year old daughter Abigail. He enjoys coaching Abigail's softball team and rooting for the southsiders, the White Sox. Even a greater fan of the Sox than he, his wife Kristin wanted to move away from the area when the Cubs swept them in the earlier this year. Although he spends many days working on the course, he still loves to get out and hit the links when he can.

Mike feels that attracting, training and retaining good employees is the most challenging aspect of his job. He also feels that we need to get more kids involved with junior golf to increase interest and keep the golf industry in the right direction.

MAGCS thanks Mike and Sportsman's Country Club for hosting this year's August Meeting. We look forward to seeing the changes and challenges the golf course will provide our members.

-OC



The Siefken's, daughter Abigail, Kirstin and Mike on the Southside.



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Tree Shade Exacerbates Physiological Decline of Greens during a Chicago Summer

Physiological Decline History.

During midsummer, physiological decline of cool-season or C-3 turfgrasses is common in the Midwest region. Previously, the malady had been blamed on various biotic pathogens. Of diseases, root pathogens were in the spotlight beginning in the 1980s when their initial discovery by plant pathologists began within the field of turfgrass science. In the mid-1990s researchers began to investigate the hypothesis that decline was more than just disease-related. Perhaps there was a physiological component that had not yet been quantified. At about the time I began my M.S. at Kansas State University new miniaturized gizmos to measure plant health began to be utilized by researchers. For example, Dr. Bingru Huang and her team of students, post-docs, and visiting scientists at K-State began to measure CO₂ gases by using a portable infrared analyzer easily toted onto a green. By taking measurements, both above and below the ground across a growing season, they found midsummer physiological decline was independent of disease. It was most likely due to “supraoptimal temperatures.” In other words, summer itself can be too dang hot for a cool-season turfgrass (e.g., creeping bentgrass). Their investigations showed soil temperatures were most important. They alone could compromise plant health. The amount of the effect was linked to the duration of supra-optimal temperatures (Xu et al., 2002).

Heat can cause starvation.

By 2000 Huang's group at K-State published results of field, growth chamber, and greenhouse experiments. They had extensively investigated, through generous funding by the USGA, the effects of high temperature stress on both shoot and roots. Aboveground they showed that the photosynthetic rate of creeping bentgrass faltered at midsummer. At the same time, plant utilization of carbohydrates or respiration continued to climb. The result was an imbalance, and stored energy reserves were used faster than could be replaced. With time, starvation of a bentgrass green was unavoidable. The canopy thins, as wear exceeds plant biomass production, and golfers notice. The

study was important because it found high soil temperature (abiotic factor) was the primary contributor to root mortality (Huang, B. and X. Liu. 2003). Root number and length were decreasing when water demand (evapotranspiration) and carbohydrates (stored in roots) were at peak levels – midsummer.

Applied turfgrass science and physiology.

These physiological studies on bentgrass broke new ground – golf greens to be exact. They showed that a golf course superintendent could not apply “plant protectants” and expect to avoid physiological decline. Instead, the key to alleviating or delaying physiological decline was pretty straight forward. Increase the mowing height, or use a newer, denser bentgrass variety rather than Pennncross. With respect to considering a newer bentgrass variety, Fry and Huang explained it using ‘layman's terms’ in their 2004 book called *Applied Turfgrass Science and Physiology*. “...new cultivars have higher tiller density and narrower leaves than Pennncross. High tiller density is associated with high canopy photosynthetic rate by providing more leaves available for light interception.” Nevertheless, renovating greens with newer bentgrass cultivars is not generally feasible midseason, whereas raising the mowing height is – though education for golfers is required. The reality is that you can't disregard Mother Nature. Each summer we expect a two-to-four-week period of “supraoptimal temperature” for cool-season turfgrass in the Midwest. The historical period for physiological decline of Chicago greens begins about the end of July and then typically peaks sometime in August. If cultural practices are not adjusted, significant thinning can occur. A dynamic, living surface requires dynamic decisions to maximize plant health. Midsummer is demanding from a multitude of perspectives, and one we previously ignored too much in turfgrass science was physiology. In the yin and yang of putting green health, a man known as ‘Golf Course Superintendent’ must find balance.

(continued on next page)

Concept of the Chicago shade study.

A study was conducted during summer 2007 to determine the effect of shade on putting green health in Chicago. Shade is a known contributor to poor turfgrass health and represents Turfgrass Science 101 (**Figure 1**). The research objective was to understand if tree shade contributes to physiological decline of greens, an abiotic disorder of creeping bentgrass and *Poa annua*. The question might be thought of in another way . . . Can improving light levels on greens also be a cultural practice that helps avoid midsummer physiological decline? We already know raising the mowing height or using newer bentgrass varieties works. The research was summarized for the international Crop Science meeting held in New Orleans the fall of 2007 (November 4-8). The poster began . . . *Light is essential for maintaining healthy bentgrass. However, landscape features can lead to light deficiencies on golf courses, especially on greens . . .*

Anatomy	Morphology	Physiology
Thinner cuticle layer	Thinner, narrower blades	Higher chlorophyll content
Lower stomatal density	Longer leaves & internodes	Lower respiration rate
Fewer chloroplasts	Lower shoot density	Lower photosynthetic rate
	Fewer tillers	Lower transpiration rate
	Thinner stems	Greater succulence
	More upright growth	Lower carbohydrate reserves

Figure 1. Anatomical, morphological, and physiological effects of shade on turfgrasses (from Fry and Huang, 2004).

A miniature device.

Once again a miniaturized device has made it possible to collect data (light levels) in new ways (next to a green). The CDGA collaborated with Spectrum Technologies, of Plainfield, Illinois, www.specmeters.com in the current study. This time a miniature weather station made it possible. The size of a shoe-box, it is called the WatchDog® Model 2475 Plant Growth Station (**Figure 2**). During July and August of 2007, air temperature, soil temperature, relative humidity, and photosynthetically active radiation (PAR) were measured at 15-minute intervals on putting greens at 15 Chicago area golf courses.



Figure 2. Close-up of the mini weather station with a light sensor used in this study.

A range of light levels desired.

At each course, the superintendent allowed the deployment of a mini-weather station, mounted one ft. high, on the green collar edge (**Figure 3**). Whenever possible, a shaded location was selected (**Figure 4**), but a range of light levels would exist from deep shade to full sun. This range was necessary and allowed for correlations between plant health and light levels. The 15 golf greens in this study were in use at the time: three sites as a course green in play (**Figure 5**), four sites as a nursery green (**Figure 6**), and eight sites as a practice green (**Figure 7**). Plant health was assessed by visual quality ratings and by an electronic method called normalized difference vegetative index (NDVI). At each site, measurements were averaged from three 6x6' plots taken on the green nearest the weather station. Composition of turfgrass species (creeping bentgrass : *Poa annua*) on each green was estimated at study start. Correlations were made between turf health indicators (e.g., visual quality) and measured environmental data (e.g., shade or daily light integral).



Figure 3. The weather station was located as close to each green as possible.



Figure 4. A range of light levels was needed, and three 6x6' plots were measured on each green nearest the weather station.