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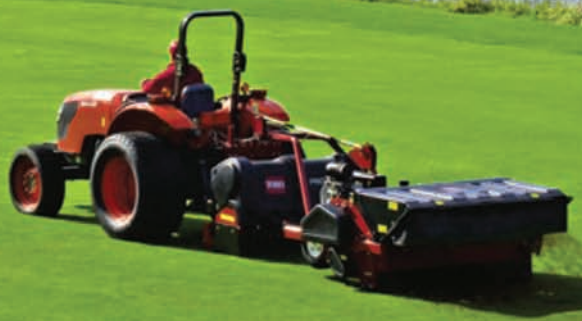

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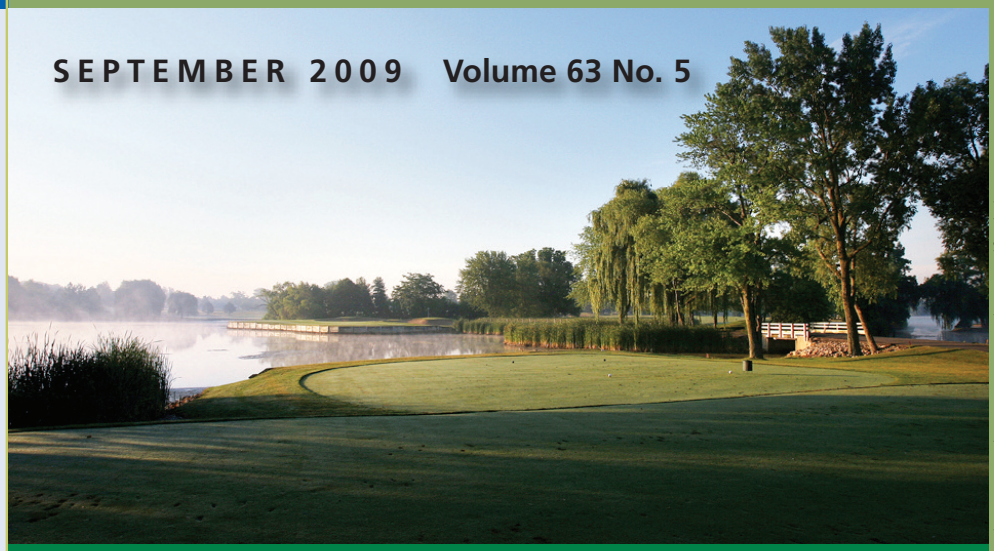


Photo Credit: Kemper Lakes Golf Club

The famed 17th peninsula green at Kemper Lakes Golf Club, 203 yards of carry from the tips places a premium on the tee shot to the center of the green.

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.

All editorial and advertisement inquiries should be directed to Luke Cella, Publisher, *On Course*. 11855 Archer Avenue, Lemont, IL, 60439. (630) 243-7900 or visit www.magcs.org for rates and requirements. Statements of fact and opinion are the responsibility of the authors alone and do not imply an opinion on the part of the officers or members.

DIRECTOR'S COLUMN
Luke Cella, *Publisher*

Never Easy

Talk among superintendents this summer about turf and growing conditions has been somewhat hushed, on the "down low" and in conversations on the side. No one wanted to jinx the few days of summer that we actually had by talking too much about the more than adequate rainfall and more than welcome cool temperatures. Everyone that I have talked to, and I've talked to some of our elder gentlemen in our Association, cannot recall a summer more conducive to growing turf. However, as I've discussed the year's conditions, the term easy has only been applied to the actually growing of the turf. Being a golf course superintendent is not easy, especially this year.

It is still August (September as you read this) and I'm sure you are tired. Tired of the long days, dealing with staff or lack thereof, with golfers and members, with the talk of budgets and revenue, the economy, equipment, products, dollar spot, irrigation systems, geese, computers and cell phones. Fill in the blanks: _____, _____, _____, this list could go on for a while. Many superintendents have picked up the slack this year by filling in for shortfalls in labor budgets by helping out with the course spraying, course set up and other tasks. Several superintendents have helped out with the management of club and course operations. Most all have gone above and beyond the normal scope and workload in a year in 2009. It is fitting and fair that the worries with turf have been a little less this summer because there has been no break from the business of golf.

The reports that I have heard is that play has not been too bad. The numbers of golfers (especially on the public side) is still more weather driven than anything. If the weather and/or forecast is good, tee sheets fill up. There have been slow times depending on the day of the week, but people have come out to play and enjoy the fruits of your labor. The private side is and has been a member's game. While most memberships are down, clubs are surviving and discovering ways to pull through.

Superintendents have led the way this past year and should be thanked, not only by members and golfers but by all the others this wonderful game supports. September is upon us. I hope that you are able to recuperate before aerification and project season starts to roll. Perhaps I will see you at one of the many events coming up in the next several weeks. If not, my hat is off to you, especially this year, no matter how easy your turf had it. **-OC**

SUPER -N- SITE

Brett Ziegler, *Knollwood Golf Club*

Dan Tully -N-

On September 8, Kemper Lakes Golf Club will welcome MAGCS members for the annual MAGCS Championship. Playing at over 7,200 yards from the tips with over 90 acres of water on the property, Kemper Lakes will prove to be a formidable challenge for all who compete in this event. Hosting is Superintendent Dan Tully, who has been at Kemper since 2001.

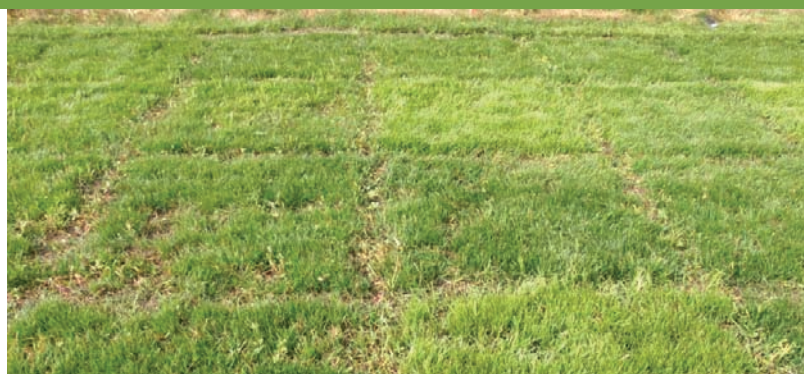
Dan has been working on golf courses since he graduated from high school. At that time, he was living in Florida where he had the great opportunity of helping out with the construction and grow-in at Eagle Trace, a TPC course in Coral Springs, Florida. After working there for two summers and assisting at two Honda Classics during his spring breaks, Dan decided that a career as a golf course superintendent would suit him well. Once he had graduated from the University of Illinois with a degree in ornamental horticulture, Dan pursued his goal of becoming a head superintendent. Working as the assistant under Bob Maibusch at Hinsdale Golf Club, he learned a great deal about what it takes to maintain a quality golf course. After six years at Hinsdale, Dan went to Illinois Center Golf in Chicago for a brief stint that involved a grow-in. Dan then worked for Michael Jordan Golf Company for 2½ years; however the company never really took off. He then had the opportunity to complete another grow in, this time at White Hawk CC in Crown Point, Indiana. After all of those experiences, Dan found a home at Kemper Lakes.

The Tully's.
Dan holding Terese (3), wife Sheila, Matt (12), Mae (9) and Emmett (6).

Kemper Lakes sits on 250 acres of beautiful property. The course can test the best players in golf but is playable for golfers of any level. It has been host to some prestigious golf events including the 1989 PGA Championship, six senior PGA Tour events, four Grand Slam of Golf events, and a USGA Women's Amateur Championship. The first time you play Kemper Lakes, you will quickly notice the large expanses of water throughout the property. The 90 acres of water come into play on 10 different holes and will likely play a role in deciding who takes home the MAGCS championship (You may just want to pack that ball retriever in the golf bag before coming out). Some of the more interesting holes include the par-5, 4th which is reachable in two for the longer hitters. The par-3, 17th plays differently every day, depending on the prevailing winds.

Outside of work, Dan is married with four children (2 boys and 2 girls), ages 3, 5, 8, and 11. Managing baseball, basketball, and soccer for his kids occupies much of his free time. Like all superintendents, Dan enjoys the outdoors, including activities such as golfing, swimming, fishing and biking.

Dan and his staff of 20 strive to provide a quality golf course for the members of Kemper Lakes to enjoy. He is quick to credit his assistant Jon Savoie, mechanic Rob Cobine, and foreman Renaldo Campo as integral parts of the operation who make his job much easier. Dan and his staff are looking forward to welcoming everyone out for the championship. The MAGCS would like to thank him in advance for hosting this great event. **-OC**



FEATURE ARTICLE I

Keith Rincker, Kenneth Diesburg, Derek Settle,
Nick DeVries and Chris Painter

Turf-type Tall Fescue Variety Trial makes its debut at CDGA Sunshine Course

For the past 50 years, breeders have worked with tall fescue (Festuca arundinacea) to develop low growing, fine textured, dense, and darker color turf-types. At first there was 'Rebel,' 'Falcon,' and 'Olympic.' Now, much advancement has been made from the forage varieties 'Kentucky-31' and 'Alta.' Turf-type varieties offered now are selected for many traits such as disease resistance, wear, and drought tolerance. There is much more to come in this turf species as breeders explore new techniques and search for new material.

As with other turfgrasses, tall fescue started out as a forage grass. Many people still associate it with roadside turf and forage grasses, but in 1962 Dr. Reed Funk at the New Jersey Agriculture Experiment Station started making collections and began selecting for lower growth habit, finer texture, and reduced vertical growth. Only the best looking plants were selected to start a breeding program of turf-types. After 19 years 'Rebel,' the first turf-type variety was released. Many more varieties were released in the following years with darker color, improved tolerance to lower mowing, and disease resistance. Dwarf varieties became available by 1990, with a much shorter growth habit and dense tillering, but they may have lacked some disease resistance. 'Trailblazer,' 'Bonsai,' 'Eldorado,' 'Murietta,' and 'Silverado' all have a dwarf habit. Today, varieties with traits intermediate between turf-type and dwarf-type have performed well across the United States (Meyer and Watkins, 2003).

Figure 1.
A tall fescue breeding program at Southern Illinois University is one of many throughout the country. Different heights, colors, and textures can be found.

Tall fescue is still limited to higher cut turfgrass that can be found in golf course roughs, home lawns, and utility turfs. At Southern Illinois University and Hickory Ridge Golf Course I learned the benefits of tall fescue in golf courses and home lawns. After speaking with turfgrass researchers I realized that tall fescue could be used further north in Central Illinois and even in the Chicago area. In Southern Illinois it is evident that bluegrasses do not perform well. Tall fescue dominates the higher cut turfgrass. In Central and Northern Illinois, Kentucky bluegrasses are traditionally seeded, but can fail in dry summers. From a standpoint of reducing inputs, tall fescue can achieve this throughout Illinois and Indiana.

The benefits and disadvantages of this turf species

In his classic text, *Turfgrass Management*, A. J. Turgeon explains the benefits of tall fescue. Seventeen turf traits are ranked among popular cool and warm season species. In 11 of the 17 traits, tall fescue ranks better than Kentucky bluegrass. Traits such as establishment vigor, drought tolerance, shade tolerance, salinity tolerance, fertility requirement, disease potential, and wear resistance are all benefits of tall fescue. All these benefits help to reduce inputs from water, fertilizer, pesticides, and cultural practices. In some locations, where effluent water is used, tall fescue's tolerance of salinity and acid soil will help maintain turf quality. In fact, in those two traits, tall fescue is the top ranked among cool season turfgrasses. Tall fescue is the deepest rooting cool season turfgrass, which is the main reason for its high marks in drought tolerance. Deep roots allow tall fescue to stay green during dry spells by utilizing deep soil

(continued on page 9)

moisture. The America type bluegrasses are known to use less water, because they turn dormant during these dry spells. However, when bluegrasses go dormant, weeds have the advantage.

On the other hand, tall fescue is certainly not flawless. In severe droughts, such as in the arid climates of the west, tall fescue will actually use all the soil moisture and not recover. In Turgeon's ranking, six of the 17 traits show tall fescue at a disadvantage. These include mowing height and cold tolerance, but in golf course roughs in Illinois and Indiana this would not be a problem. Cold tolerance can be an issue north of here and possibly in the northernmost parts of Illinois. Winter survival can be compromised when sheets of ice are present. Leaf texture, shoot density, mowing quality, and recuperative capacity are also disadvantages of tall fescue. Breeding efforts have increased density and decreased leaf widths of turf-type tall fescue. For example, my research at SIU with spaced plantings of tall fescue found 'Kentucky-31' leaf blade widths averaged 0.88 cm wide, while an improved variety 'Coyote II' measured 0.48 cm wide. More data can be found on tall fescue varieties through the National Turfgrass Evaluation Program (NTEP), www.ntep.org, and also through the new Chicago District Golf Association (CDGA) Sunshine Course tall fescue trial installed this year. Research results for visual quality, texture, color, and spring greenup in our trial will be posted in field day booklets, scouting reports, and online at www.cdgaturf.com. Variety trials compare recent tall fescues to industry standards like the forage-type 'Kentucky-31.' These can be used to find varieties with desirable traits.

As mentioned earlier, poor mowing quality is one disadvantage of tall fescue. This is caused by tough leaves that can shred when mower blades are not sharp. Tall fescue, however, ranks higher than perennial ryegrass, which can also shred from mowing. One trait receiving attention in recent years is the plant's ability to spread. Recuperative capacity is lacking in tall fescue, due to the absence of strong rhizomes. In recent years, companies have offered rhizomatous tall fescue, but research from Kansas State University shows that tall fescue's ability to fill in voids is limited (St. John et al., 2009).

Figure 2.
Short rhizomes do occur in tall fescue, but vigorous spreading is not available.

Don't forget the disease issues

Of course since the CDGA is focused on disease, it is important to describe those diseases that affect tall fescue. Tall fescue is most susceptible to brown patch and leaf spot. The threat is largely limited to the hot temperatures of July and August for brown patch and to wet, shaded seedlings for leaf spot. Pythium can also occur during the hot, wet conditions of the summer months. In contrast, tall fescue does not get dollar spot, summer patch, necrotic ring spot, or red thread as Kentucky bluegrass does. Overall, the disease potential for tall fescue is the lowest of all cool season turfgrasses in Dr. Turgeon's table.

Two added benefits

Two more benefits of tall fescue deserve mentioning. First, endophytes are fungal organisms that develop a symbiotic relationship with grasses. These fungi live in the above-ground portion of the grass plant in fescue and ryegrass species. Benefits of endophyte infection include additional tolerance to drought, insect herbivory, and soil acidity (Malinowski and Belesky, 2000). Varieties differ in their levels of endophyte infection. Suppliers should have information on levels within their varieties. Another benefit of tall fescue turf is the allelopathic effects it can have on some weeds. Allelopathy is the production of chemicals by a plant that inhibit the growth of nearby plants. In short, it is similar to a weak herbicide that is produced by the tall fescue plants and released into the soil. The science of allelochemicals is relatively new, but studies have shown mature tall fescue to limit the growth of crabgrass, white clover, and other legume crops (Peters and Mohammad Zam, 1981).

Blending with bluegrass can be an option

In some cases, the best of bluegrass and tall fescue may be desired. New tall fescue varieties with darker color and finer texture are better suited to mix with bluegrass varieties. In mixes of the two species, tall fescue is generally seeded at normal rates and bluegrass is added at 10 percent. In areas where recuperative capacity is needed, this mixture will provide the bluegrass needed to fill in voids. Also, any damage from disease can then be filled in with the resistant species.

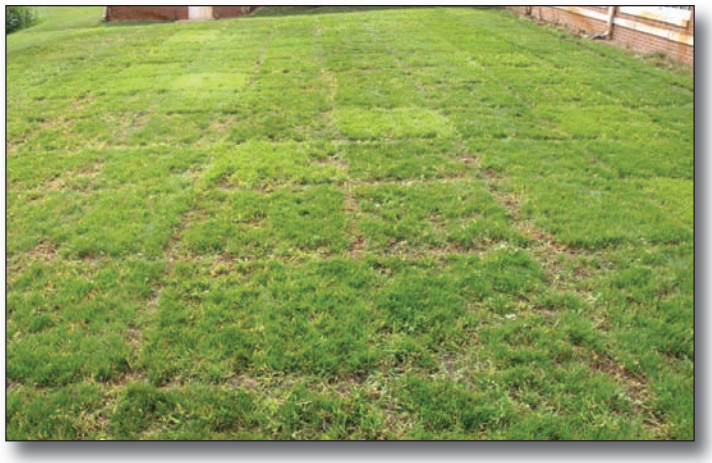


Figure 3.
Tall fescue varieties on Sunshine Course have many different shades of green.

(continued on next page)

The CDGA variety trial

The benefits of tall fescue turf can reduce the inputs needed to provide excellent turf. With the numerous varieties available and the improvements made to turf-type varieties, we felt the addition of a variety trial would be a great asset to Sunshine Course. On May 22nd, the CDGA seeded a variety trial of 58 different tall fescues. Plots were strung out between the Midwest Golf House building and a wetland drainage ditch. The plot was planned to receive full sun and reduced wind movement in order to influence brown patch development. Each plot was seeded with 8 lbs/1000 sq. ft. Fertilizer was applied at 1 lb Nitrogen (N)/1000 sq. ft. of a balanced fertilizer. On June 23rd, an outbreak of Pythium blight occurred, and most plots were affected by only 1 to 3%. However, to prevent loss of turf coverage an application of Subdue Maxx was made at 1 fl. oz./1000 sq. ft. Drive herbicide was also used, on June 30th, to control crabgrass that germinated during establishment. On July 7th, plots were fertilized again with 0.5 lbs N/1000 sq. ft.

Germination was noticed in 10 to 12 days and plots began growing-in during June. On June 23rd before the first mowing, seedling vigor was rated on a 0-9 scale, with 9 being the greatest vigor. Many of the earlier varieties like 'Kentucky-31,' 'Southeast,' and 'Jaguar 3' have more vigor (table 1) and grow at a quicker rate than varieties that are selected for reduced vertical growth. Color differences are quickly noticed. 'Kentucky-31' has a lime green color since it was originally selected for forage rather than turf. 'Southeast' and 'Bulldog 51' have a lighter green color as well, but these varieties were selected to resist disease and perform in the warmer, humid climate of Georgia. On the other hand, varieties 'AST 1,' 'AST 2,' 'AST 3,' 'AST 4,' 'Banshee,' and 'Darlington' had the darkest green color (table 1). Seven weeks after seeding, the majority of the tall fescue plots had more than 85% coverage.

The CDGA will continue to collect more data from these tall fescues. Breeders are currently collecting plants from around the world and studying new techniques to develop varieties. For years to come, we will see more improvements out of this turfgrass species. **-OC**

Figure 4.
'Kentucky-31' tall fescue is still used extensively in utility turf. Its light color and tall growth habit can be undesirable in highly managed turf.