| FOR SALE | Jacobsen 522 walk greens mower with grooms. Very good condition. $1,000. Contact: Scott Hoffmann, CGCS Madden's on Gull Lake 218-820-1258 or 218-825-4953. |
| FOR SALE | Set of tender-conditioners for 3215 B series John Deere fairway mowers. Excellent condition. $600.00 per unit, set of 5. Contact: Steven A. Van Natta Owatonna Country Club (507)451-4144 |
| WANTED | 1-ton dump truck, late model in good condition. Eric Ritter Spooner Golf Club 715-635-6438 |
| WANTED | Turf Groomers that would fit on Jacobsen GKV, GKV, GKV or 522 walkers. Contact: Steven A. Van Natta Owatonna Country Club (507)451-4144 |
| WANTED | Used Loly pull behind fertilzer spreader Contact: Chris Klaate Grand View G.L. Duluth,Mn 218-522-0812 |
| FOR SALE | Vermeer 44 in. tree spade $11,900 7521 Vertidrain (7ft.) $12,000 5 ft. Vertidrain $1,200 Toro 3020 Sandpro $3,250 Toro 5000 Fwy topdressor $4,200 Toro lightweight fwy reel $650 Toro spikers to fit triples (new) $1,200 Scott Wersal Ridges At Sand Creek Phone: 952-492-2644 ext 24 |
| WANTED | A 1996 - 2003 Jac. AR5, or TORO 4500, or a Ransoms equivalent with 5 independent rotary mowers. Contact: Erik Lemke Pomme de Terre G.C. Morris, MN Office: 320-589-1009 |
| WANTED | New or used windscreens for Yamaha Golf Carts Contact: Tod Blankenship Big Fish Golf Club (715) 934-4660 |
| WANTED | Toro Greens Rollers Contact: Dave Meuleners Timber Creek Golf Course 952-201-1225 |
| WANTED | A used lightweight fairway mower for a neighbor 9-hole course in northwest Minnesota. They don't have much money but want to eliminate mowing with an old 7-gang. Looking to spend less than $2,000. Contact: Chuck Tutth Thiel River Golf Club (218) 688-0788 |
| FOR SALE | 2002 Toro 3100 "sidewinder" reel mower. 1,300 hours, excellent shape, fresh grind/new bedknives. Asking $5,700, open to offers. Eric Ritter Spooner Golf Club 715-635-6438 |
| WANTED | Oak Ridge Country Club (952) 938-6900 |
| FOR SALE | 14 Toro Network 8000 complete satellite boxes. These are the older style metal boxes. $750 each / OBO All for $5,000 Contact: Keith Scott Oak Ridge Country Club (952) 938-6900 |
2007 Joseph S. Garske Legacy Scholarships Awarded for 11th Consecutive Year

By Scott Hines, CGCS
Windsong Farm Golf Club

The Legacy Award, named after the founder of Par Aide Products Company, Joseph S. Garske, located in Lino Lakes, Minnesota is committed to further the education of children and grandchildren of MGCSA members through financial contributions. This is the 11th consecutive year for these awards.

This year we are pleased to award a $1,500 Garske Legacy Award to Pamela Erickson, $1,000 MGCSA Legacy Scholarships to Laura Fischer and Kelsey Phenow, and a $1,500 Garske Legacy Award renewal to Andrew Evenson.

The late Mr. Garske, who died at the age of 76 in 1982, started Par Aide in 1954 with plans to make a "good" ball washer. A foundry man and avid golfer, he knew little about the golf business, tried to sell his ideas for design and tooling to two accessory companies, was turned down by both and so began Par Aide Products Company.

The Legacy Scholarship was started by Steve Garske, son of the Joseph Garske, in 1996.

"I am pleased to have our company provide these scholarships since for many superintendents, providing a college education for their children requires true sacrifice. I am fortunate to have the opportunity and ability to help," Garske said.

"As a long-time member of the Scholarship Committee some years ago, it always bothered me that we had lots of scholarships available for turf students but nothing for the legacy of current members," Garske said. (Heeding the comments of a long-time Minnesota Superintendent that our committee was working to put him out of a job.) While Steve thought this was a bit of paranoid thinking, it did make him realize that supply and demand works in this industry as well, and if nothing else, an oversupply of eager new superintendents could definitely undermine salaries. However, it was the following that motivated Par Aide to initiate a legacy scholarship program: 1) Many Superintendents are underpaid, in my opinion, and they truly work a labor of love. Sending a child to college is likely a real hardship. These same Superintendents who now have college-age children were the very ones who had been so responsible for supporting our company through all the years and had helped us attain our success. We wanted to thank them. 2) Our founder, Joe Garske, did not have any formal education and was always conscious of that fact. He had quietly supported at least one young man in gaining a degree. 3) There were lots of turf student scholarships but few if any Legacy awards.

So it seemed obvious to Steve to initiate a legacy program and it was discussed at numerous scholarship meetings. The problem was how to administer such a program. Suppliers to our industry did not want to be in a position of judging one potential recipient/customer against another, and Superintendent members were not comfortable with reviewing personal information and making judgments on each other either. The idea laid dormant until we discovered the Citizens' Scholarship Foundation of America, now called Scholarship America, an organization that does nothing but review and award scholarships. It's completely impartial and considers all information confidential. The MGCSA quickly agreed to accept the cost of administration and the Joseph S. Garske Legacy was born. The idea was to provide two two-year scholarships to deserving legacy of current MGCSA Members. This program is thought to have been successful by all

(Continued on Page 15)
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Scholarships—
(Continued from Page 12)

and has been in existence since 1996, helping numerous sons and daughters of Superintendents pursue their college education. Par Aide has continued to prosper and as an expansion of its Minnesota program it now also offers a similar program

nationwide through the GCSAA.
Winners of this year's Legacy Scholarships are:

**Pamela C. Erickson**, daughter of David and Diana Erickson. David is the Superintendent of Eagle Valley Golf Course in Woodbury. Pamela is a graduate of Stillwater Area High School and now attends Iowa State University where she is majoring in Civil Engineering.

**Laura Fischer**, daughter of Thomas and Deborah Fischer. Thomas is the Superintendent at Edinburgh USA in Brooklyn Park. Laura is a graduate of Osseo Senior High School and is now enrolled at the Carlson School of Management with a major in Business.

**Kelsey L. Phenow**, daughter of Donald and Cheri Phenow. Donald is employed by the Minneapolis Park Board. Kelsey is a graduate of Coon Rapids High School. Kelsey attends the University of Wisconsin–Stout where she majors in Business/Retail. Kelsey also received a MGCSA Legacy Scholarship in 2006.

Receiving a Garske Legacy Award renewal is **Andrew J. Evenson**, son of Brian and Connie Evenson. Brian is the Superintendent at Birchwood Golf Course in Pelican Rapids. Andrew is
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An Exploration of Velvet Bentgrass (Agrostis canina) Use on Golf Greens

By Aaron Johnsen
First year Masters of Science Student in Applied Plant Sciences

Velvet bentgrass (Agrostis canina) has been a potential turfgrass species for golf greens for many years. However, over the last 40 years it has received little use on golf courses due to the inability of seed producers to find a variety that seeded well and golf course superintendent hesitation. The recent development of improved seeded varieties has made velvet bentgrass a renewed option for golf greens. Currently, velvet bentgrass is mostly used in the Northeast United States, but it has potential for other locations (Boesch, 2005). The decision to use velvet bentgrass on a golf course green requires exploring the advantages and disadvantages of its use, followed by developing establishment and management protocols.

Advantages

In a study involving 10 professional golfers, all 10 said that velvet bentgrass produced a better putting surface than five cultivars of creeping bentgrass (Agrostis stolonifera) (Monteith and Welton, 1932). Therefore, the use of it on golf greens should be considered.

Characteristics

The main characteristics that make velvet bentgrass a good turfgrass for golf greens are its fine leaf texture and high shoot density. Velvet bentgrass has an average leaf width of 0.52 mm and density of 245,756 shoots/m². This can be compared to creeping bentgrass with an approximate leaf width of 0.71 mm and density of 115,104 shoots/m². The finer leaf blade and high shoot density allow velvet bentgrass to create a smoother and more consistent playing surface than creeping bentgrass (Torello and Lynch, 2005).

Requirements

Velvet bentgrass golf greens require less light, fertility, and water when compared to other turfgrass species commonly used on putting greens, which can save golf courses money, time and energy. Reid (1933) evaluated velvet bentgrass and creeping bentgrass shoot growth in full sun, sun until noon then shade, shade until noon then sun, and speckled sun. He found that velvet bentgrass had similar shoot growth in all light conditions, while creeping bentgrass growing in the shade treatments had half of the shoot growth of creeping bentgrass growing in full sun (Reid, 1933). The results of this study are important, because quality turfgrass growth on shaded putting greens is difficult to attain and light quantities on golf greens can be difficult to manipulate.

As with light, velvet bentgrass responds favorably to lower nitrogen fertilizer rates. In the 1998 National Turfgrass Evaluation Program (NTEP) quality ratings, velvet bentgrass had the highest ratings when fertilized with at least 4.1 lbs of nitrogen per year, while creeping bentgrass had the highest ratings when fertilized with at least 6.1 lbs of nitrogen per year (Morris, 2000). This data demonstrates that fertility requirements for quality turfgrass are lower for velvet bentgrass than creeping bentgrass. The irrigation requirements for velvet bentgrass are also lower than for creeping bentgrass. DaCosta and Huang (2006) evaluated turfgrass quality of bentgrass species under different irrigation treatments. The authors concluded that creeping bentgrass maintained at 60% of evapotranspiration (ET) had unacceptable turf quality, while velvet bentgrass maintained at 60% of ET retained acceptable turf quality during the summer months. Therefore, they recommended that creeping bentgrass be irrigated at 80% of ET and velvet bentgrass at 60% of ET during the summer (DaCosta and Huang, 2006). Similar findings for creeping (Continued on Page 19)
bentgrass irrigated at 80% of ET were reported by Sass and Horgan (2006). Moreover, DaCosta and Huang (2006) found that during the fall months, both creeping and velvet bentgrass were able to maintain quality levels at 40% replacement of ET (DaCosta and Huang, 2006).

The lower light, fertility and water requirements of velvet bentgrass make it a superior turfgrass for golf greens, because fewer inputs of time, money and energy are required. The described characteristics and requirements of velvet bentgrass are advantages of velvet bentgrass greens to golf course superintendents, golfers and the environment.

**Disadvantages**

One major reason for the lack of velvet bentgrass use on golf greens is the perceived disadvantage of thatch and chlorosis. They are perceived disadvantages, because current technology enables turfgrass managers to avoid/correct these issues (Radko, 1968).

**Thatch**

Thatch, the layer of organic matter and living tissue between the turfgrass shoots and soil, can be a problem with almost any turfgrass species if incorrect management occurs (Christians, 2004). Velvet bentgrass is more sensitive to incorrect management due to its high shoot density and fine leaf texture (Holliman et. al, 2005). The management practices that lead to thatch build-up in velvet bentgrass putting greens include overfertilization, limited aerification and inadequate topdressing.

Velvet bentgrass is often mistakenly fertilized like creeping bentgrass. This causes it to produce excessive vegetative tissue, which contributes to the thatch layer. By reducing the amount of nitrogen fertilizer applied to velvet bentgrass golf greens, the production of tissues can be reduced, therefore reducing thatch accumulation (Skogley, 1975). (The correct nitrogen rates will be discussed in the management section.) Besides fertilizer problems, primitive aerification equipment existed during the period of high velvet bentgrass use. The lack of decent equipment at this time limited the ability of turfgrass managers to aerify, therefore impeding their ability to reduce thatch in greens. However, today’s aerification equipment is improved and it can effectively reduce thatch (Holliman et. al, 2005). Another way to reduce thatch accumulation is through topdressing, which is much easier to perform today due to equipment advances (Torello and Lynch, 2005). Through appropriate fertilizing, aerifying and topdressing, the thatch produced by velvet bentgrass is manageable.

**Chlorosis**

The other perceived disadvantage of velvet bentgrass is chlorosis, which is caused by iron deficiencies or incorrect soil pH (Radko, 1968). However, like thatch, chlorosis can be managed with today’s tools. The main tool available to the present day golf course superintendent is the soil test. Soil tests can measure the iron level and the pH of the soil. If an iron deficiency is detected by a soil test, the regular application of chelated iron will reduce the chlorosis in a velvet bentgrass turf stand (Fermanian and Voigt, 2005). However, the usual cause of...
chlorosis in velvet bentgrass is soil pH. Velvet bentgrass prefers a soil pH between 6.0 and 6.5, and it can perform well at a soil pH between 5.0 and 5.5. If the soil has a high pH, ammonium sulfate (Torello and Lynch, 2005) or sulphuric acid should be applied in small quantities during the growing season to lower the soil pH (Reid, 1932). Through proper soil testing, the chlorosis problem in velvet bentgrass is manageable.

As described, there are numerous advantages of velvet bentgrass use on putting greens, which far outweigh the disadvantages. Therefore, velvet bentgrass should be used more on golf greens. However, prior to establishing a velvet bentgrass golf green one should understand the proper establishment and management procedures.

**Establishment**

Proper turfgrass establishment is essential to having a quality-playing surface that is sustainable. The proper establishment of any turfgrass involves soil preparation, starter fertilizer, seeding time, seeding rate, seeding depth, seeding method and irrigation. Of these, the factors directly affecting velvet bentgrass establishment are cultivar selection, seeding time and seeding procedures.

**Cultivar Selection**

In recent years, velvet bentgrass cultivars have been included in turfgrass evaluation trials and produced varying results. The 1998 NTEP bentgrass (putting green) trial tested the quality, color and spring green up for the velvet bentgrass cultivars 'Vesper', 'Bavaria', and 'SR 7200'. The results of this test were average quality ratings (for all test sites) of 5.4 for 'Vesper', 5.2 for 'SR 7200', and 3.9 for 'Bavaria', based on a 1-9 scale, with 6 being average (LSD0.05= 0.2). In the color ratings 'Vesper' received a 6.5, 'SR 7200' a 6.2, and 'Bavaria' a 5.3 based on the same scale (LSD0.05= 0.3). Finally, for spring green up, 'Vesper' received a 5.9, 'SR 7200' a 6.2 and 'Bavaria' a 5.4 based on the 1-9 scale (LSD0.05= 0.3) (Morris, 2000).

The velvet bentgrass cultivars Greenwich, Vesper and SR 7200 were involved in a study performed at Rutgers between 2002 and 2004. In this study, the average quality rating for 'Greenwich' was 6.2, 'Vesper' was 6.1, and 'SR 7200' was 5.9 based on the previously mentioned scale (LSD0.05= 0.6). The spring green up ratings were 4.3 for 'Greenwich' and 7.3 for 'SR 7200' (LSD0.05= 1.6) (Weibel et al., 2004).

The University of Minnesota's 2004 NTEP bentgrass (green) trial evaluated the velvet bentgrass cultivars 'Vesper', 'Greenwich', 'Legendary', and 'SR 7200'. The University of Minnesota's data for average quality rating were 6.9 for 'Vesper', 6.4 for 'Greenwich', 6.2 for 'Legendary', and 5.9 for 'SR 7200' based on (Continued on Page 21)