

Kids enjoy the far-forward tees at The Oak Grove Golf Club. On the business side, the help provide revenue in the traditionally slow evenings.

by themselves," Prieskorn says. "Many of them play faster than the men because their holes are so short."

The semi-private Oak Grove has 250 members, and Prieskorn says membership growth and retention has been better than competing golf courses in the area because the family golf concept is such a good selling point when potential members inquire about joining.

Others at the club are starting to use the far-forward tees, too. Families and area high-school golf teams often use them for practice. And one senior member — 92 years young — was close to retiring his clubs before Prieskorn offered him the short-course perspective.

"He was frustrated because he could barely hit the ball out of his shadow anymore, about 100 yards off the tee," Prieskorn says. "He was ready to quit, and he told me, 'If I can't play, then I'm going to go home and die in my La-Z-Boy.'"

Thanks to the forward tees, that member continues to hit the links.

PHOTO COURTESY: OAK GROVE GOLF CLUB

>

The concept has worked so well for Oak Grove that Colligan Golf Designs has mimicked the layout for several other clients.

"It doesn't take much of a sell because it doesn't cost anything during the renovation process, and it offers some flexibility on the course as well as a marketing tool down the road," Colligan says.

The Prairie Lakes Golf Course in Grand Prairie, Texas, a municipal facility, features new junior tee boxes by Colligan. The tees are used by men working on their short game and beginners as well as kids. Its 27 holes allow the course to use the forward tees on nine holes on slow days while maintaining a regulation golf course for traditionalists.

Colligan helped christen the new tees with a round of golf after his job was done — nine holes from the men's tees and nine holes from the far-forward tees.

"I'm not sure I played much different from the forward tees," he says. "What I noticed was it helped with the intimidation factor, and it brought a lot of the fun back into the game. Golf should be enjoyed, not endured."

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[ABOUT THIS SERIES] "Growing the Game" is *Golfdom's* quarterly series – now in its third year – that focuses on how the golf industry can attract more players to create more rounds. In addition to this installment on initiatives aimed to quicken the pace of play and shake the game from its traditional six-hour obligation, we've also explored the impact women, minorities, disabled golfers and baby boomers could have on increasing play. We've talked to golf course architects about ways they can make the game more friendly for beginners and average golfers, and we've highlighted creative marketing programs

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Harmony In Growth

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ClubCorp isn't exactly flying blind on the private club side. The company already champions The Clubs of Kingwood (Texas) as the most kid-friendly complex in the country, so it has some experience empowering its junior members. At the Shores course at The Clubs of Kingwood at Atascocita, kids actually get to drive the golf car thanks to a fleet of 20 special vehicles that feature a courtesy brake on the passenger side. The facility also has family golf cars that allow foursomes to ride together.

The Shores course completes its setup with tee boxes, fewer bunkers and oneheight mowing for fairways and rough. Only tees and greens are mowed differently to make it easier for juniors and novices.

But unlike most of its properties, Kingwood has 117 golf holes, which allows ClubCorp to dedicate its nine-hole Shores course to family golf and kids play. But Shores will be the anomaly in the Club-Corp portfolio. For now, the company's other properties will simply mow out teeing areas instead of building tee boxes, and it will complete the teeing area with ball washers and benches. That way, each facility will be able to gauge adoption by measuring rounds and gathering feedback from members before constructing new tees that might not be used. increase in retention, so that's one of the key components driving this," says Mark Burnett, executive vice president of the golf and country club division at ClubCorp. "The more that you can give the spouse or the kids ways to increase the country club-usage patterns, then you can build the longer-term benefit of retaining and recruiting golfers."

Burnett is charged with implementing the Short Course Initiative. He's begun the process at a handful of clubs so far, and he expects each of the company's more than 90 clubs to be up and running this spring.

Burnett says the short-course concept is just one incentive to bolster value for club members. He's also consulted with clubs in his portfolio to create three-hole and six-hole routes, as well as upgrade practice facilities when appropriate.

All the initiatives aim to alleviate the time commitment that traditional golf requires. Golf purists likely will resist many of the changes coming down the pike. But amid slowing demand, shrinking supply and an uncertain economy, the game might need to change to ensure its survivability.

"There are some people who are in total denial about golf and think that it will come back to the level it was," Gore says. "But we (at ClubCorp) don't believe it will unless we change."

"Kingwood has had a very good

Quick Tips on Building a Short Course

Create a master plan. Locate new teeing areas on all the holes before implementation.
Locate new teeing area near a cart path when possible. Tees should be on the edge of the fairway with a good line of sight to the flag, on the left side of the landing area on a dogleg right, for example.

Eliminate carries over water or menacing bunkers from new tee.

Actual new tee boxes need not be constructed. Well-marked mow-out areas can suffice, but give it a formal presence with a ball washer and bench.

If an earth shaper is on property already, say for a renovation, then build tee boxes low, raised about 2 feet, so maintenance cost will be slight.

About 400 square feet to 500 square feet is sufficient until the club can gauge usage trends of the new tees.

Grass mounds or decorative grasses can obscure the view of the new tees from the traditional tees and help them blend with existing landscape.

Distances should range between 60 yards to 110 yards on par 3s, 120 yards to 180 yards on par 4s, and 180 yards to 230 yards on par 5s.



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TURFGR/SS TRENDS

POA CONTROL WITH PGRs

Poa Annua Suppression With Velocity Plus PGRs Requires Review of Weed Population

By Steve McDonald

Superintendents use a variety of chemicals to maintain fairways at the desired quality level. Some of these chemicals include plant growth regulators (PGRs) and herbicides (pre-emergent and postemergent). Two separate field trials were conducted during a two-year period to evaluate the impact of bispyribac-sodium (Velocity) herbicide treatments as impacted by pre-emergent herbicide and commonly used PGRs.

Velocity was released for sale in the autumn of 2004 and labeled for the control of *Poa annua* and *Poa trivialis* in creeping bentgrass (*Agrostis stolonifera*) and perennial ryegrass (*Lolium perenne*) fairway turf. Research shows that Velocity has the potential for *Poa annua* and *Poa trivialis* management, and the optimal application timing might be when average ambient air temperatures are 65° Fahrenheit. Golf



One of the main challenges with using Velocity during the playing season for Poa control is the subsequent voids creating by killing grassy weeds.

course superintendents frequently apply other herbicides and plant growth regulators prior to and following this time frame. Information regarding possible interactions of these chemicals with Velocity is warranted.

The purpose of Study l was to evaluate the effects of pre-treatments of a commonly used grassy weed herbicide and two plant growth regulators for their impacts on *Poa annua* control.

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Want a better way to regulate plant growth without using chemicals? Applying a fertilizer that gradually feeds your turf will stop the unwanted flush of growth you're accustomed to with your grandfather's favorite fertilizer. If plants could talk, they would say that they prefer a more consistent feeding schedule, similar to our typical three square meals a day. Research indicates benefits in using chemical plant growth regulators, so help your favorite PGR work smarter by applying a slow-release or controlled-release fertilizer. Spring fertilizer season is right around the corner, and Agrium Advanced Technologies is your corner supermarket, stocking all the best technology you need in fertilizers. Call us. or visit us on the Web at www.agriumat.com.

Continued from page 55

One of the main issues with using Velocity to control *Poa annua* and *Poa trivialis* is the voids created by removing the grassy weeds during the golf playing season (Photo 1, p. 55). Therefore, the purpose of Study 2 was to evaluate the effects of season-long PGR programs for the ability of Velocity to control *Poa annua* and the impact on the resulting voids from the declining *Poa annua*. Other factors evaluated in each trial also included: dollar spot severity, overall turfgrass quality and *Poa annua* establishment following the applications and creeping bentgrass safety.

Both studies were completed on fairways at Brookside Country Club, located in Pottstown, Pa., during the 2006 and 2007 seasons. All treatments were applied in a 1-gallon per 1,000-square-foot carrier volume. Velocity 17.6 WDG was applied twice in both studies at 30 grams active ingredient per acre (ai/A) approximately on a 14-day interval. In both trials, percent of plot area covered by healthy green Poa annua was rated visually on a 0 to 100 scale with 0 indicating no green, live Poa annua and 100 equalling entire plot area covered by Poa annua that was completely green and healthy. Percent bareground was rated on a 0 to 100 scale with 0 equaling no bareground and 100 indicating entire plot bareground with visible soil.

Study 1: herbicide PGR pretreatment

This site was comprised of about 92 percent to 96 percent creeping bentgrass and 4 percent to 8 percent *Poa annua*. Treatments included post-emergent applications of Velocity in combination with pretreatments of Primo MAXX and Trimmit2SC and the pre-emergent herbicide Dimension Ultra 40WP. Pretreatments of PGRs and Dimension were also applied without subsequent Velocity applications.

Summary: No differences were observed between treatments with a PGR or herbicide pretreatment and Velocity alone for their level of *Poa annua* control and injury, and creeping bentgrass injury. Previous research has reported that Velocity has an ability to cause a "yellowing" of creeping bentgrass. In this trial, no significant yellowing was observed following either application of Velocity. Plots treated with Dimension, Primo MAXX or Trimmit 2SC alone had similar populations of *Poa annua* at the end of the trial. However, in all Velocitytreated plots, there was a significant reduction in *Poa annua* (less than 1 percent plot area) by mid-August (Table 1). Velocity-treated plots consistently had less dollar spot blighting (data not shown). The PGR pretreatments slightly increased the level of dollar spot control when compared to Velocity applied alone.

These data indicate there were no negative effects from pre-treating a mixed stand of creeping bentgrass and *Poa annua* with Dimension, Primo MAXX or Trimmit when followed by Velocity. All Velocity treatments effectively controlled *Poa annua* in a mixed stand with less than 10 percent *Poa annua* and little bentgrass injury was observed.

Study 2: PGR/Velocity combinations

This site was comprised of approximately 80 percent to 85 percent creeping bentgrass and 15 percent to 20 percent *Poa annua*. Treatments included two June applications of Velocity alone or in combination with seasonlong (April-September) applications of Cutless 50W, Primo MAXX and Trimmit 2SC.

Summary: Over the course of the entire season, Trimmit 2SC plus Velocity and Cutless 50W plus Velocity decreased Poa annua populations and percent bareground, while increasing bentgrass color when compared to plots treated with Velocity alone. Beginning in late August, Poa annua populations increased in the Velocity-alone treated plots. This could be due to Poa annua germinating and re-establishing from seed in the voids left behind from the dead Poa annua. It is possible that the monthly applications of Cutless 50W and Trimmit 2SC reduced vigor and health of emerging Poa annua seedlings. Another important aspect of this trial is that both Trimmit 2SC and Cutless 50W increase the horizontal growth of creeping bentgrass when compared to Primo MAXX alone. It is possible that the Poa annua was controlled in the Velocity-treated plots, and the creeping bentgrass filled in the voids left behind by aggressive stolon growth and tillering.

Treatment	Pre-treatment rate	Velocity Rate (gr ai/A)	1 June	28 June	14 July	15 August
			% Poa annua plot ¹			
Dimension Ultra 40 WP ^v	0.38 lbs a.i./A	- Laboration () alore	5.5 a ^z	7.0 a	4.8 ab	3.8 ab
Dimension followed by (fb) Velocity*	0.38 lbs a.i./A	30	5.5 a	1.3 cd	0.3 c	0.3 c
Primo MAXX *	5.4 oz/A		3.5 a	3.3 bc	3.8 b	3.5 b
Primo MAXX fb Velocity ^y	5.4 oz/A	30	5.0 a	1.3 cd	0.5 c	0.5 c
Trimmit 2SC *	8.0 oz/A		2.3 a	2.3 cd	3.5 b	3.3 b
Trimmit 2SC fb Velocity ^y	8.0 oz/A	30	5.8 a	0.0 d	0.0 c	0.0 c
Velocity (17.6 WP) -alone ^y	none	30	4.5 a	0.7 d	0.0 c	0.0 c
Untreated			5.5 a	4.7 ab	5.3 a	5.5 a
P <f< td=""><td>- AND STATES OF THE</td><td></td><td>0.6413</td><td>0.0001</td><td>0.0001</td><td>0.0001</td></f<>	- AND STATES OF THE		0.6413	0.0001	0.0001	0.0001

Percent of plot area covered by Poa annua in creeping bentgrass fairway height turf as influ-

TABLE 1

v Dimension alone was applied on 18 April 2006.

Dimension alone was applied on 18 April 2006 and Velocity was applied on 26 May and 8 June 2006.

* Primo MAXX and Trimmit 2 SC were applied on 13 May 2006.

Primo MAXX and Trimmit 2 SC were applied on 13 May 2006 and Velocity was applied on 26 May and 8 June 2006.

² Percent of plot area covered by healthy green Poa annua was rated visually on a 0 to 100 scale with 0 = no green, live Poa annua and 100 = entire plot area covered by Poa annua that was completely green and healthy.

enced by herbicide, plant growth regulator and Velocity, 2006

Conclusions

Superintendents must have an accurate estimation of Poa annua and Poa trivialis populations prior to applying Velocity. In numerous research projects throughout the country, Velocity has provided a high level of grassy weed control. These two studies were conducted on fairway height stands that did not contain a majority of Poa annua (less than 20 percent in all plots). Turfgrass quality was reduced due to the collapse and death of weeds. Data from Study 1 indicate there are no adverse effects of pre-treating fairway height bentgrass with Dimension, Primo MAXX or Trimmit 2SC. Data from Study 2 indicate that season-long programs of Trimmit 2SC and Cutless 50W in combination with Velocity applications may provide a high level of Poa annua control while maintaining quality levels by increasing fill-in. In circumstances where greater than 20 percent of Poa annua or Poa trivialis are present, it would be best to consider aggressive PGR programs or other cultural methods to reduce the population prior to any herbicide applications targeting removal.

Future research will be conducted to

examine the effects of seeding into Velocitytreated turf mid-summer, and the impacts of various pre-emergent herbicides applied prior to and following the Velocity applications.

Acknowledgements: Turfgrass Disease Solutions LLC wishes to thank SePRO, Syngenta Crop Protection and Valent for supplying support and product for these trials, as well as Jeff Fanok.

Steve McDonald is the president of Turfgrass Disease Solutions, which conducts research trials and serves as an agronomic resource for turfgrass managers in the Mid-Atlantic region. He is an adjunct instructor at the University of Maryland. He can be reached at turfgrassdiseasesolutions@yahoo.com.

REFERENCES

Isgrigg, J and F. H. Yelverton. 1999. Effects of plant growth regulators on ger-mination and growth of annual bluegrass and creeping bentgrass. Proceedings of the 53th Annual Meeting of the Northeastern Weed Science Society, Vol. 53, p 64.

McCullough, P. and S. Hart. 2007. Trinexapac-ethyl Influeces Efficacy and Foliar Absorption of Bispyribac-sodium. Northeast Weed Science Society, Poster Session.

McDonald, S. J., Dernoeden, P. H., and Kaminski, J. E. 2006. Creeping bentgrass tolerance and annual bluegrass control with bispyribac-sodium tank-mixed with iron and nitrogen. Online. Applied Turfgrass Science doi:10.1094/ ATS-2006-0811-01-RS.

Watschke, T. L. and J.A. Borger. 2004 Annual Bluegrass Control in Fairway Height Creeping Bentgrass. The Pennsylvania State University, Center for Turfgrass Science 2004 Turfgrass Research Report, p. 60.

Buffalograss Moves From Rough Grass to Fairway Potential

By Robert C. Shearman

am often asked, "Does buffalograss have a role as a golf course turf?" My response, of course, is, "Yes!" It is an excellent selection for roughs and a recent release, Prestige (Photo 1), has strong potential for use as a fairway turf.

A little over 20 years ago, the University of Nebraska-Lincoln (UNL) started a breeding program to improve buffalograss as a turfgrass species. The United States Golf Association partnered with us in this effort.

Why buffalograss?

We felt buffalograss had some natural characteristics that made it an excellent candidate for use as a golf course turf. Buffalograss is native to the Great Plains of North America. It is a dense, low-growing, warmseason grass species with excellent hightemperature tolerance, drought resistance and water conservation characteristics. It has a very low nitrogen requirement. These attributes piqued our interest in improv-



Prestige is a new release from the University of Nebraska-Lincoln buffalograss breeding program. Here it is growing at five-eighths of an inch while irrigated with 1 inch of water per month.

ing buffalograss as a golf course turfgrass species.

Our program has been quite successful to this point. We've released nine cultivars (Table 1, p. 62) in the past 20 years that have returned more than \$1 million in royalties to UNL and the USGA.

The success of this program has been primarily the result of a team effort involving faculty, staff and students in agronomy, entomology, biochemistry, biological engineering, horticulture and plant pathology. Terry Riordan provided leadership for the UNL buffalograss breeding program for nearly 18 years. It was under his leadership that the majority of the current cultivar releases were made. In 2002, a Buffalograss Breeding Program Working Group (Table 2, p. 64) was formed, and I had the good fortune to take on the role of leading this group and the buffalograss breeding program.

In most of our selection studies, we maintain buffalograss germplasm with 1 inch of water per month, whether from rainfall, irrigation or both. Buffalograss has a deep and extensive root system, relatively slow vertical growth rate, leaf hairs, and leaf rolling characteristics contribute to its ability to avoid drought and recover successfully from extended drought stress. All of our selections are evaluated for their tolerance to close mowing (Photo 2, p. 62). Our recent improvements have concentrated on turfgrass performance, increased seed yield and enhanced establishment characteristics.

Buffalograss is quite variable and is a relatively easy species to improve using traditional plant breeding techniques. Our research results indicate that cultivars can be developed with improved turfgrass quality, color and density, as well as extended greenness and increased seed yield potential. As water conservation continues to become a *Continued on page 62*