Having someone like Monroe take the time to mentor a young sales rep has paid dividends for the turf program in Wisconsin. "One day Monroe asked me, 'Why doesn't Upjohn give out turf scholarships here at Wisconsin? They give scholarships at other schools, why not Wisconsin? We have so many students coming through the turf program who need financial help.'

"So Monroe wrote a very lengthy letter to me and explained the benefits," John continues. "I presented it to our company. They thought it was a great idea. In 1981, the UW received the first Upjohn scholarship, and Wayne Horman received it. Today, Wayne is employed by Scotts. For many years I had the pleasure of giving these scholarships to students, and I've seen these students get jobs and do well in the industry."

John has also served the industry through professional organizations. He was president of the Illinois Turf Foundation in 1988 and president of the Midwest Regional Turf Foundation in 1989 and 1997. In 1995 he received the Illinois Turfgrass Foundation Distinguished Service Award. And he currently serves on the board of directors for the Illinois Turf Endowment. He has not served on any boards in Wisconsin but has enjoyed being an allied supporter of the various associations within the turfgrass industry.

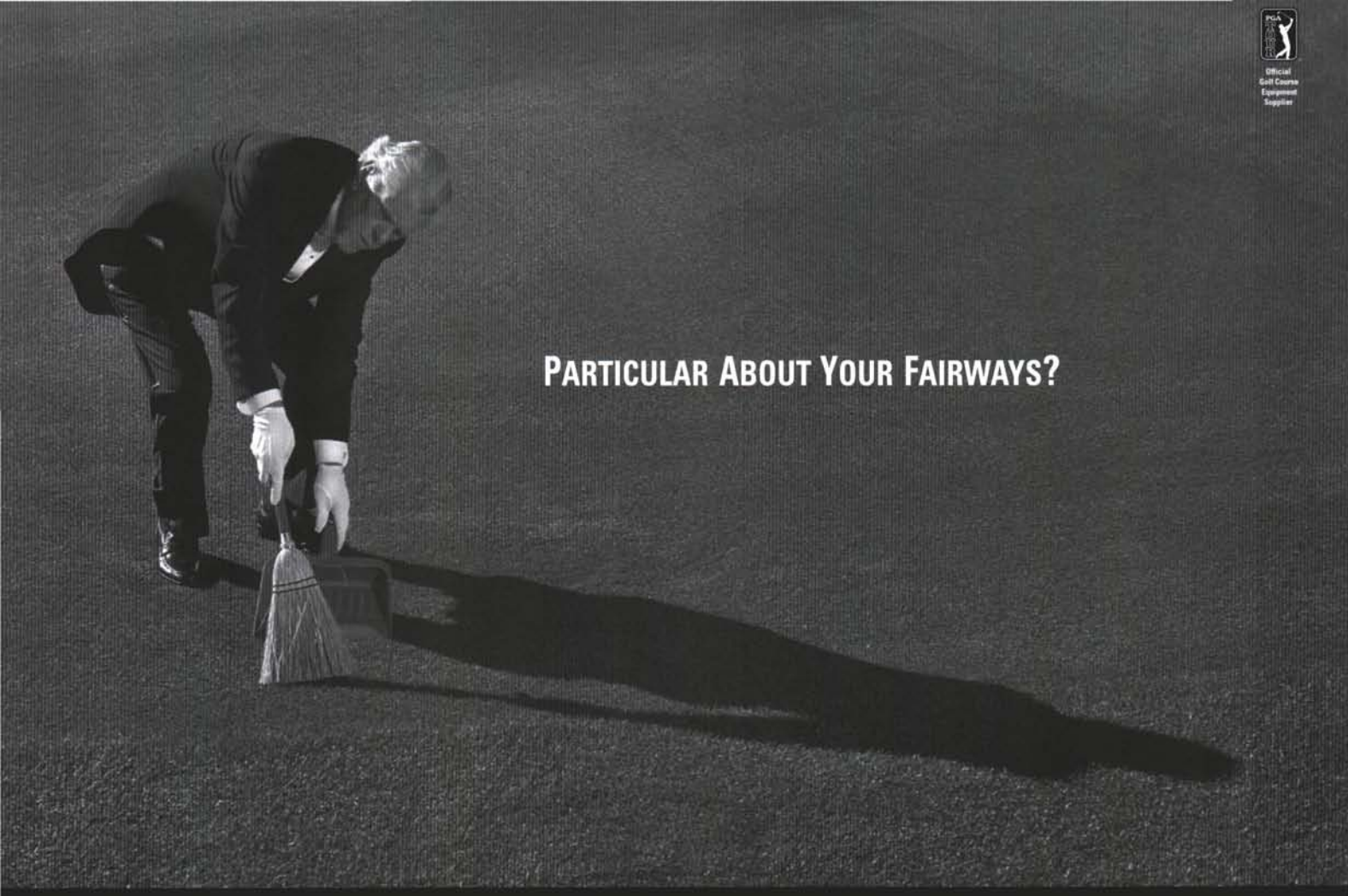
During his five years with Bayer, John has been recognized as a "high performer," receiving both the Bayer Masters and Leadership awards.

John has one very personal tie to Wisconsin; his wife, Pamela, was originally from Chippewa Falls. He met her in 1982 when they were both living in Chicago, and they were married in 1985. Pamela works as a sales manager for Salem Services, a staffing and consulting firm. They live in Elburn, a far western suburb of Chicago.

He's a high flier...

Growing up near a golf course did more than affect John's career path; it also influenced his hobby of choice - flying radio-controlled airplanes and helicopters. "My dad was a B-24 bombardier in World War II, so I grew up hearing stories about flying," John explains. "As a kid, we always would go out to the airports to watch aircraft. And to this day Dad and I attend the EAA air show in Oshkosh each summer where we interact with former WWII veterans and POWs."

When he was 11, John saw someone flying a model plane out in a field. "I realized that I wanted to build my own plane and learn to fly it," he says. "The golf course I worked on was an excellent place to practice my flying skills. It gets expensive when you misjudge



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"After work or on weekends I like to go to our field down the road or to a golf course to fly my planes. A golf course makes a great airfield," John explains. "Years ago, I often took my planes or helicopters with me while making a sales call. The golf course superintendents would say, 'My kids have got to see this.' From that point forward the kids would always ask, 'Dad, does Mr. Turner still have his airplanes?' It has created a lot of interesting discussions even when I meet people at trade shows many years later."

John used to fly at competitions, but now he does it just for fun. And for knowledge. "When I fly commercially on airplanes, I understand the dynamics of flying which helps me relax during take-off and landings and through turbulent conditions," John says.

"I also enjoy playing golf. If I play twice a month, that's about it," he says. "I usually play with golf course superintendents on their fund raising events, or I get calls from superintendents inviting me to play their course and be their guest. It's a true pleasure. But I still can't seem to get my handicap down. It seems to increase by one stroke each year. I may need a golf lesson from Bruce Schweiger!"

This past summer John traveled to Scotland and golfed at St. Andrews, Turnbury and Glenn Eagle. "I've had a chance to go to where golf started, to experience the golf course conditions there, to experience the history of golf," he says. "I could reflect back on all the people who have played St. Andrews and the famous designers and architects who have been there. It's memorable just to think about that."

As he summarizes his life so far and looks toward the future, John says, "I started as a kid at a small public course. Then I worked at a private course. Then in the turf business. Where I want to be in 20 years is retired from the sales business and back to the golf course as an assistant superintendent. Then I will have completed a full circle."

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Does Sprayer Tank-Mix pH Effect White Grub Insecticide Performance?

By Dr. R. Chris Williamson, *Turfgrass and Ornamental Specialist, Department of Entomology, University of Wisconsin-Madison*

Some pesticides are sensitive to alkaline (basic) conditions and can be rapidly broken down (hydrolyzed) in the spray tank. For example, trichorofon is especially sensitive to deactivation hydrolysis. Rarely does low (acidic) pH cause a problem. To minimize the problem of hydrolysis, most insecticides that are sensitive to pH have buffers added to the product formulation to stabilize the pH near neutral (pH = 7). In general, tank mixes should be maintained near neutral or slightly acidic. Tank mix pH can be easily checked with an inexpensive pH meter, or indicator papers that change according to pH. In the event that the spray tank solution pH is above 7.0, a commercial buffering agent should be added to adjust the pH downward to the 6 - 6.5 range. Most pesticides that are affected by pH will indicate or state so on the label. Additionally, agitation and warming can cause spray tank solution pH to change during the day, especially when fertilizers and other chemicals are added. Subsequently, it is advantageous to apply the tank mix spray immediately or soon after mixing. Should the tank mix be permitted to sit for a measurable period of time (i.e., > 2 hours), it is recommended that pH reading be taken and the spray tank solution be appropriately adjusted.

To save valuable time, many turfgrass managers often combine two or more pesticides, or a pesticide and a fertilizer or other related turfgrass products so they can be applied at the same time. On occasion, chemicals can be incompatible, causing deactivation of one or all of the pesticides, clumping, severe separation, or undesirable gelling in the spray tank. Combining or tank mixing products can drastically alter or change the spray tank pH, subsequently affecting the performance respective product(s) by hydrolysis.

A study was conducted to evaluate the effect that spray tank-mix pH had on two widely used white grub insecticides: halofenozide (Mach 2®) and imidacloprid (Merit®). Both Mach 2 and Merit were evaluated at four pH levels: 5.0, 7.0, 7.6, and 9.0. Each respective insecticide treatment was exposed to respective spray tank-mix pH for a period of 72 hours before the application was made to the turf prior to Japanese beetle oviposition (egg-lay). The results of this study suggest that spay tank-mix pH has no adverse or negative affect on the performance of halofenozide or imidacloprid (Table 1.)

Table 1. Effect of Tank Mix pH on the Efficacy of Mach 2 and Merit for Control of Japanese Beetle Larvae.

Treatment	pH	Rate (lbs. ai/A)	% Control
Mach 2 2SC	5.0	1.5*	100
Merit 75WP	5.0	0.3	98.9
Mach 2 2SC	7.0	1.5*	97.2
Merit 75WP	7.0	0.3	100
Mach 2 2SC	7.6	1.5*	98.6
Merit 75WP	7.6	0.3	100
Mach 2 2SC	9.0	1.5*	100
Merit 75WP	9.0	0.3	100

* The current labeled rate for halofenozide (Mach 2) is 2.0 lbs. ai/A (2.9 fl oz of product /1000 ft^2).

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Why Has It Been So Hard to Control Anthracnose These Past Few Years?

By Dr. Geunhwa Jung and Dr. Tae-hyun Chang, *Department of Plant Pathology, University of Wisconsin-Madison*

Had problems controlling anthracnose disease the past several summers? Well, there might be one possible explanation. Dr. Tae-hyun Chang, who joined my lab in December 2001, carried out a field experiment this past summer to test fungicide efficacy for controlling anthracnose at the Blackhawk Country Club in Madison, WI. Dr. Chang came from South Korea and has played an important role in turf research by developing a pink snow mold inoculation method, assisting graduate students with experiments, analyzing field research data collected over the past years, and preparing a refereed publication. As one of the outcomes, he attended the annual national meeting of American Phytopathological Science (APS) last summer and gave an excellent poster presentation titled "Efficacy of Fungicides on the control of Typhula Snow Molds in Turfgrass". The manuscript is now being prepared for publication. His work with fungicides for anthracnose will hopefully lead to equally beneficial results.

Recently, anthracnose basal rot, caused by *Colletotrichum graminicola*, has become an important disease in Wisconsin and I have been repeatedly stating that the efficacy of some controlling fungicides has been reduced. Our lab had the opportunity of running an experiment with the cooperation of the superintendent at the Blackhawk Country Club. The objective of the study was to evaluate four systemic fungicides and one contact fungicide for their efficacy of controlling the disease. Hopefully, we will not only find the most efficacious fungicides, but also gain biological insight as to why the reduced efficacy in some fungicides was reported.

Materials and Methods

Fungicides labeled for controlling the anthracnose disease which

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were selected for this study are as follows: four systemic fungicides (Propiconazole, Triadimefon, Azoyxystrobin, and Thiophanate-methyl), one contact fungicide (Chlorothalonil), and one control (no chemical). The experimental plot was set up on fairway turf where more than 60% of the turf is estimated to be *Poa annua* species and the rest is creeping bentgrass. Over the years, high disease pressure has been consistently observed at that location. Experimental design was a split-plot with three application rates (low and high label rates and a mixture of systemic and contact fungicide with the respective low rate) as whole-plot treatments in a randomized complete block design. The fungicides were applied to subplots (Table 1). Individual plot size was 3 ft x 7 ft. Preventive chemical applications (14 day interval) were made on June 16, June 20, July 4, and July 18, 2002. Liquid treatments were applied with a CO2-powered boom sprayer using XR Teejet 8005 VS nozzles at 30 psi in water equivalent to 2 gal per M sq ft.

Disease ratings (percentage of infected area) of the plot were visually recorded on August 2 and 17, 2002. The first disease symptom was noticed around the last week of July. In addition, the total percentage of *Poa* populations per plot was visually estimated twice. Since the anthracnose occurred only in *Poa annua* species, the percentage of the infected areas of *Poa* was recalculated by estimating the percentage of the entire plot that was infected and then dividing that amount by the percentage of *Poa* present in the plot. The final data analysis using the recalculated damage percentage was carried out and presented in Table 1.

Results

Tank mixing systemic and contact fungicides using their respective low label rate, had significantly higher efficacy for the anthracnose control than the systemic fungicides alone regardless of the label rates (Table 1). However, the contact fungicide performed as well as the mixtures. More research is required for further confirmation of the results found in this study.

Except for Banner Maxx, all of the systematic fungicides, regardless of the manufacturer's recommended high or low rate, demonstrated reduced efficacy for controlling the disease.

Conclusion

It was very difficult to perform a field evaluation of fungicides for the control of anthracnose due to the mixed growth of *Poa* and bentgrass species in the same area. The percentage of infected areas can be easily under- or over-estimated due to the difficulty of differentiating *Poa* populations from creeping bentgrass populations. However, a carefully designed experiment can be successfully performed if a golf course with a high *Poa* population can be identified and the percentage of the *Poa* population is accurately estimated.

A second year of data is required before drawing any final conclusion. In addition, for a future experiment, anthracnose isolates need to be isolated from the golf courses where the lack of control or reduced efficacy of systemic fungicides has been reported. This disease is becoming an important pathogen. Consequently, it requires more attention from researchers and more research in Wisconsin.

Rate/mixture	Treatment	Rate (oz a.i./M sq ft)	% of diseased areas	
			August 2	August 17
Low rate	Heritage (Azoxystrobin: 50WDG)	0.2	18.8a*	59.6a
	Banner Maxx (Propiconazole: 1.24MC)	1	1.6b	12.7ab
	Bayleton (Triadimefon: 50WDG)	1	19.5a	42.3ab
	Cleary's 3336 (Thiophanate-methyl: 4F)	2	14.1a	36.1ab
	Daconil (Chlorothalonil: 82.5WDG)	2.8	0.0b	7.3b
	Check (no chemical)		14.1a	51.0ab
High rate	Heritage (50WDG)	0.4	15.5ab	39.2a
	Banner Maxx (1.24MC)	2	2.0cd	8.8a
	Bayleton (50WDG)	2	22.7a	38.9a
	Cleary's 3336 (4F)	4	7.2bcd	24.1a
	Daconil (82.5WDG)	5.6	0.0d	2.3a
	Check (no chemical)		11.9abc	43.1a
Mixture	Heritage (50WDG) + Daconil (82.5WDG)	0.2 + 2.8	0.0a	0.0b
	Banner Maxx (1.24MC) + Daconil (82.5WDG)	1 + 2.8	0.7a	0.8b
	Bayleton (50WDG) + Daconil (82.5WDG)	1 + 2.8	0.6a	0.0b
	Cleary's 3336 (4F) + Daconil (82.5WDG)	2 + 2.8	0.4a	8.0ab
	Heritage (50WDG) + Bayleton (50WDG)	0.2 + 1	1.0a	2.5b
	Check (no chemical)		5.8b	30.0a

*Within each rate, numbers followed by the same letter are statistically similar.

Table 1. Systemic and contact fungicides evaluated for the control of anthracnose disease at the Blackhawk Country Club in Madison, WI.

SEPTEMBER WGCSA MEETING - Fox Valley Golf Club

By Dustin Riley, *Golf Course Superintendent, Oconomowoc Golf Club*

The Golf Course - Fox Valley Golf Club

The Fox Valley Golf Club is a private 18-hole golf course located in Kaukauna, just north of Appleton. The 375 members entertain themselves on a course that was originated in 1946, as a 9-hole course, in nearby Combined Locks. The 1966 the golf club relocated to the outskirts of Kaukauna. Those new 18-holes were eventually renovated by Lohmann Golf Designs, Inc. in 1996 and 1999. The renovation involved reshaping the green surrounds and sand bunkers. A new golf course maintenance facility was also included in the finished renovation.

The Golf Course Superintendent - Scott Bushman

Scott Bushman has been responsible for the care of Fox Valley Golf Club since 1997. The Marshfield native acquired his Bachelor of Science - Horticulture with an Emphasis in Turfgrass Management degree from the University of Wisconsin-River Falls in 1995. While completing his education, Scott served as the assistant golf course superintendent at RiverEdge Golf Course in Marshfield. In 1996, Scott relocated to serve as Joe DeBruin's'assistant at Fox Valley Golf Club. A year later, Scott would transition into the role of superintendent and continue overseeing the renovation. The maintenance staff consists of two additional full-time members. twelve seasonal employees bring the staff total to 15 during the summer months. As with many superintendents, Scott must rely on an assistant and mechanic to accomplish many of the tasks. In Scott's case, Mike Schuman serves both roles. The efforts of the staff were recognized as the tournament began on the well-cared for golf course.

The Educational Session - "The Year in Review"

The USGA Green Section Agronomist, Bob Vavrek, presented his annual "Year in Review." During his travels as the USGA Agronomist, Bob presented a wonderful slide show illustrating the dos and don'ts of golf course turfgrass management. Several pictures displayed the results of poor, inconsistent topdressings. The layering developed from such inconsistencies resulted in turf easily weakened by mechanical and environmental stresses. A nice highlight of the presentation was a slide depicting a beautiful grow-in of a green. The text book photo was taken from one of our very own. Dave Smith of Abbey Springs Golf Club was praised for the wonderful soil profile of a new green.

Since winter is approaching faster than most "golfers" would like, and since this is Wisconsin, Bob spent a few moments scaring us by describing the snow mold and winterkill damage that occurs in Alaska. Interesting photos showed the annual harmful effects of the true frozen tundra. This year's review presented many reminders of the importance of basic turfgrass management. Ideas and methods may improve but problems can always occur.

Host Scott Bushman.

Pickups and machinery give evidence of a WGCSA monthly meeting!

The Event

WGCSA members, affiliates and guest migrated on September 9, 2002 to Kaukauna to participate in the annual WGCSA tournament. The late August temperature cool down was one of the welcomed topics of conversation among the participants. However, the cool down would be non-existent as the upper 80's/low 90's provided a pleasantly warm day for golf. Typical meetings are usually set up for fun with for-