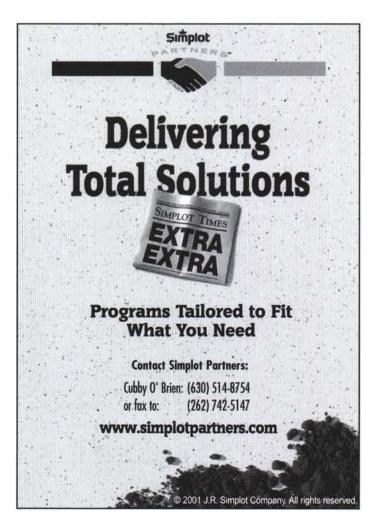
WGCSA

which was ranked fifth in Golf Digest's Places to Play. Ron Forse obtained his Bachelor of Science in landscape architecture from West Virginia University. In 1979, he instructed part time at a branch campus for Penn State University. Currently, Mr. Forse is an instructor for two GCSAA seminars.

Mr. Forse's presentation was titled "To Tree or Not to Tree." His talk was well illustrated through slides of many do's and don'ts. Trees can have a purpose on a golf course. Due to the technological changes in the game of golf, trees have become a necessity in some cases. "People are hitting the golf ball farther than ever. And they're also mis-hitting the golf ball farther than ever." Trees are required to provide protection from errant golf shots.

However, Mr. Forse explained that many times outside influences (owner, members and golf course superintendents) can interfere or change the way a golf hole was intended to be played by the golf course architect. Too many golf courses have used trees to frame a golf hole. In fact, it's a shame when trees are placed to conceal a hazard, such as a bunker. The golfer should be able to stand on the tee box and analyze how the golf hole was



designed to be played and then weigh the benefits and risks when deciding on a golf shot. Several before and after photos illustrated the positive effect of proper tree maintenance (removal). Opening up a tee shot, by removing trees, doesn't make the golf hole easier. However, the hazards that become visible force the golfer to "think" before swinging. Shame on us for making the golfer think while playing the game.

The Event - Superintendent/Guest Tournament

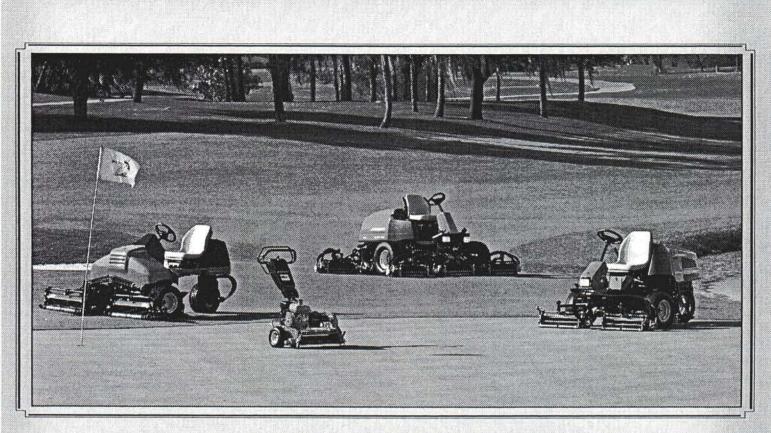
The Superintendent/Guest tournament was formatted as a two-person scramble. Two divisions separated golf course superintendents with guests from other participants. Results are as follows:

Division 1 - Golf Course Superintendents & Guests 1st 64 Seth Brogren \$125 Tim Delain \$125

- 2nd 67 Joe Knudtson \$75 Matt Brown \$75
- 3rd 69 Bob Padula \$50 Paul Blumke \$50
- 4th 70 Dan Shaw \$25 Scott Todd \$25
- 70 Dave Herr \$25 Lee Reinke \$25
- Division 2 Affiliates & Others 1st 69 Ed Witkowski \$90 Steve Van Acker \$90
 - 2nd 70 Bob Lohmann \$60 Mike Benkusky \$60
 - 3rd 73 JD Huseboe \$25 Jason Lemanski \$25
 - 73 Chuck Schwab \$25 Gail Schwab \$25

Once all of the score cards were tallied, it was determined that there was only one golf hole would be awarded a skin. Dustin Riley and his guest Jim Bauer were the only team in the event to birdie Hole 1. The sole birdie sung to the tune of over \$800.

Thank you everyone for all participation and attendnce at the 2002 WGCSA meetings. As the Golfing and Arrangements Chairperson it is my responsibility to schedule and organize the monthly events. If anyone would be interested in hosting a monthly meeting or would like to express concerns or suggestions, please feel free to contact me or one of the WGCSA board of directors.



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What's with Your Nozzle?

By Jeff Gregos, Turf Diagnostic Lab, University of Wisconsin -Madison

When developing a disease management program, a lot of time is given to fungicide selection. Likewise in setting up a sprayer an effort is made to make sure that it is calibrated correctly and everything is functioning properly. You probably even spend time making sure if any nozzles are clogged. But, how much time is spent in evaluating different nozzles on the efficacy of control? Over the past couple of years we have evaluated five different nozzles for their efficacy on dollar spot control. What we found out might shock you or please vou, based on your current selection of nozzles.

The current trend in the industry is to switch to larger droplet, less drift style nozzles. But is this what is best for turfgrass disease control? You have to consider what the nozzles were developed for. Most nozzles in the turf industry have come to us from the agricultural market. In the agricultural market a majority of the applications are made for weed control. In the turf market there is very little applications of herbicides; a majority of the applications are for fungicides. Even comparing nozzles in a TeeJet® catalog you find that there are very few nozzles that provide excellent control for contact fungicides; however most of the commonly used nozzles provide excellent control with systemic fungicides. Our research will put forward some discrepancies.

The Study

In the summer of 2001 and 2002 studies were conducted comparing five different nozzles: XR TeeJet®, TwinJet®, Turbo TeeJet®, Turbo FloodJet® (Spraying Systems Co.®, Wheaton, IL 60189) and the RA Raindrop® (Delavan Spray Technologies, Widnes, UK WA8 ORJ). Each nozzle was evaluated using six different fungicides (two different chemicals from each of the three topical modes of action for fungicides) for the control of dollar spot. The contact fungicides used were Daconil Ultrex and Spotrete. Chipco 26 GT and Curalan were used for the local penetrant mode of action. Bayleton and Banner Maxx were evaluated as the acropetal systemics. All treatments were applied to a 'Penncross' green maintained at 0.156" prior to disease development. Percent damage caused by dollar spot was evaluated several times annually.

The Results

In both years of the study no statistical differences were observed for the contact mode of action fungicides. This was a surprise as the hypothesis of the study was that contact fungicides would be most

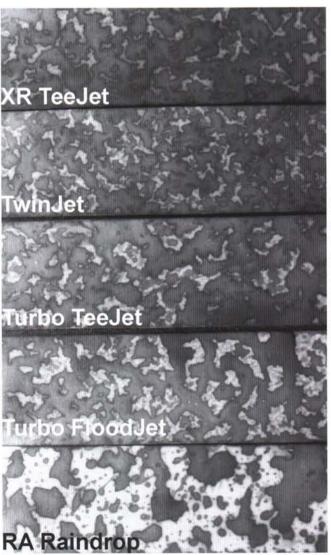


Figure 1.

Comparison of nozzle spray pattern using water sensitive paper. The yellow is the original color of the paper and the blue is where the spray pattern landed on the paper.

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affected by nozzle type, or more specifically, droplet size.

The local penetrants did show significant differences during the summer of 2001, but only trends were observed in 2002. With these fungicides the finer droplet size nozzles tended to perform the best. While the FloodJet® and RA Raindrop® nozzles which produce larger droplet sizes tended to provides less control of dollar spot.

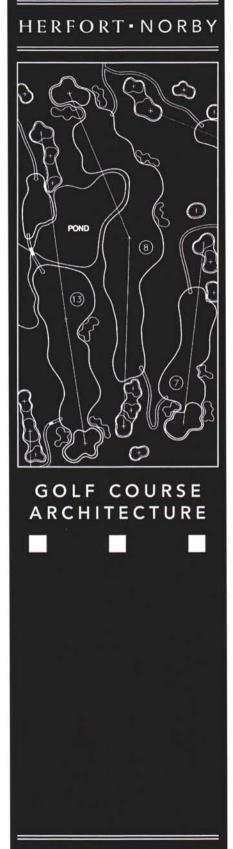
The chemicals that were most affected by nozzle type were the acropetal systemics. Similar to the local penetrants droplet size seemed to be the most influential. In general the nozzles were separated in two groups, with all the Spraying Systems nozzles having better performance than the RA Raindrop® nozzle. This is evident in figure 1 where the spray pattern of all of the nozzles has been compared using water sensitive paper.

Summary

When selecting nozzles for disease control in turf it is best to select nozzles based on spray droplet size. Many nozzle catalogs will provide comparison charts or nozzle droplet size produced by nozzles that they produce. Most of the nozzles used in the study produced medium to coarse sized droplets. The FloodJet and the RA Raindrop have an extremely coarse droplet size and probably are not ideal for turf disease control. While drift should always be a consideration, fungicides would have reduced consequences in comparison to herbicides if some drift occurs. Nozzles that have medium to coarse droplet size should provide excellent disease control and limit drift.

	8-6-01	8-17-01	8-1-02	8-17-02	9-5-02
Contact Fungicides					
XR TeeJet	138.8	45.5	4.3	6.3	7.1
TwinJet	89	30	4.3	5.9	5.9
Turbo TeeJet	151.1	44.6	5.3	5.8	6.3
Turbo FloodJet	121.9	45.1	3.9	5.4	6.5
RA Raindrop	92.9	46.8	5.6	10.3	9.9
LSD (P=0.05)*	NS	NS	NS	NS	NS
Local Penetrant Fungicides					
XR TeeJet	12.9	23.9	0.3	0.5	1.4
TwinJet	16.3	26.9	0.1	0	0.5
Turbo TeeJet	17.1	28.4	0.3	0	0.8
Turbo FloodJet	23.9	40.6	0.3	0.8	1
RA Raindrop	57.1	67.6	1.5	1.8	2
LSD (P=0.05)*	15.0	16.6	NS	NS	NS
Acropetal Systemic					
Fungicides					
XR TeeJet	21.4	4.9	0.1	0.3	0.4
TwinJet	43.6	4.5	0.1	0.5	0
Turbo TeeJet	39.8	4.9	0.4	0.8	0
Turbo FloodJet	45.5	9.6	0.3	0.5	0.3
RA Raindrop	75	12.5	1	2	0.4
LSD (P=0.05)*	21.4	6.2	0.6	1.0	NS

Table1. Mean number of dollar spot infection centers per plot ratings.



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That Old Annual Review

By Tom Schwab, Manager, O.J. Noer Turfgrass Research and Education Facility, University of Wisconsin-Madison

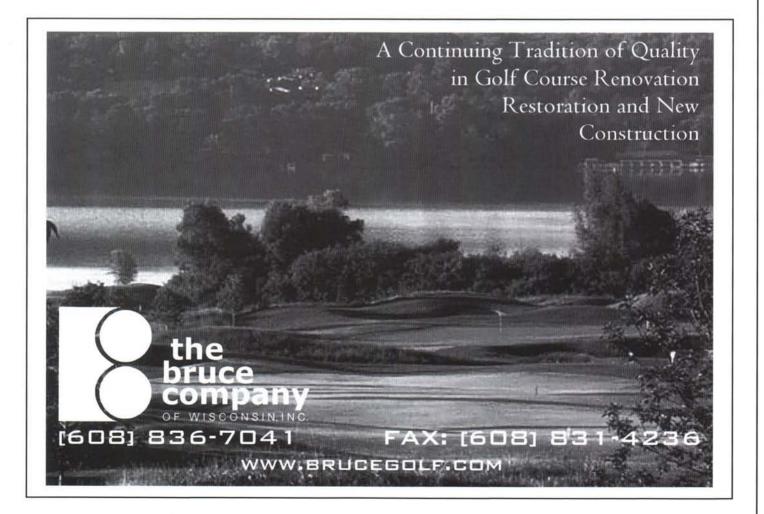
departments at the any MUniversity of Wisconsin-Madison have their managers write year-end annual reviews. The department I work for is one of them. I work for Agricultural Research Station (ARS) which operates twelve University research farms widespread throughout the state. It's likely there is one in your vicinity. These reviews can be a pain to do especially when you have so many other projects going like I do right now. But they really do offer many positive benefits in the long run. It's a good way to document

your past year's accomplishments and set goals for the coming year.

And there have been big accomplishments at the Noer Facility in 2002. I'm not talking about the outstanding turf research conducted by the professors. I'm going to report on the work I do as an employee of Ag Research Stations. The three biggest projects accomplished this year were replacing the facility carpet, adding more parking, and developing 10 more acres for research land. For these annual reviews, I also like to document weather occurrences, pest activities, success of field days and other events, and describe how much support we get from industry that helps us maintain the facility and get the research done.

V

The first improvement we did this year was to replace the facility carpet and repaint the offices. The carpet had become pathetic and didn't leave a very good first impression for visitors. I first set off to try to find funding because new carpeting wasn't in my budget. Luckily the professors were as tired of the worn out



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NOTES FROM THE NOER FACILITY

carpet as I was. So they chipped in some funds. Then I was able to get a large chunk of funding from my department and through a grant from the College of Agriculture and Life Sciences. I also saved half the installation cost by doing lots of the labor myself. Now if I can just pound on the grad students and other laborers to keep the carpet clean, it may last another 10 years.

The second improvement was to add more parking spaces, which may not seem like a big deal. But it was to me. This facility was built with only nine parking spaces. That may have worked 10 years ago but the facility is utilized by many more people these days. It bothered me to have employees and grad students parking all over the lawn. This is supposed to be a state of the art turf research center for goodness sake!

So I set off this spring with a budget of nil and constructed 13 more spaces. I soon discovered when I started excavating that I was digging into an old barn site. The old silo and barn foundations were a challenge to work around with my little John Deere tractor but I also found a bottomless supply of sand which must have been the floor of the old barn. That sand worked great for the subgrade of the new parking lot. I then found a state agency that takes care of facility roads and it donated gravel for the parking lot. We thus got a new parking lot for free. We finished it off with a nice landscaping bed, compliments of Mark Watts, from Tumbledown Trails Golf Club, lending his tree spade to relocate 3 small hawthorn trees and my summer staff helping to relocate an ornamental bed.

Those accomplishments were nothing like the main highlight of the summer though. We added 10 more research acres to the facility. The original land has 127 irrigated plots which are almost 100% utilized. The researchers have turned



Relocating ornamental bed with new parking lot in background.





Bruce Company reshaping new 10 acres.

away projects because there wasn't land to conduct them on. Over the years we realized we had to find more land. Luckily the University owned 10 acres adjacent to the facility. Unfortunately it was too sloping to conduct research on. Along comes Lee Bruce from the Bruce Company. He offered to recontour the land for a price we couldn't refuse. On top of that, Olds Seed Solutions donated all the seed and Spring Valley Turf Products donated all the fertilizer to grow in the new land. This new land development is a shining example of a very collaborative effort.

Those three accomplishments were pretty major in my mind and surely got documented in the review. The rest of the review deals with my inputs of Research Assistance, Technical Duties, O u t r e a c h / T e a c h i n g , Writing/Editing, and Extra Service I provided to the University, my department, and the community. Those notes are pretty tedious compared to the new projects so I'm going to spare you the details on those.

I would like to mention all the donations of equipment, supplies, and services that industry donated to the Noer Facility, though. I wouldn't have been able to accomplish those projects and the researchers wouldn't have been able to conduct all their important studies without this help. I'm sure I speak for all the researchers and the University when I say thanks in keeping the Noer Facility one of the top facilities of its kind in the nation. Here is the list of donors to the facility that I know about: I'm sure there are other donors who gave directly to the researchers that I don't know about, so I'm sorry if I missed your names.

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- Greensmix
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- John Deere Equipment
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- Prosource One
- Reinders Turf and Irrigation
- Spring Valley Turf Products
- Syngenta
- Toro Equipment
- Toro NSN
- Turfco

- United Horticultural Services
- UW-Madison College of Ag and Life Sciences
- Watts Landscaping
- Wisconsin Turf Equipment

Other items of note during 2002 were that we conducted another verv successful Summer Field Dav and Turf Research Golf Fundraiser. Field Day is really an effort of several departments, researchers, grad students, and staff whom I'm sure are all proud of the event. Although the attendance numbers for 2002 were down substantially for Field Day, the event was still a resounding success as far as showing off the facility and all the new research. This was a little difficult to pull off with the mini-drought that occurred this summer. We went 24 days without rain in July except for one day when a trace 0.08 inch of rain fell. During this same period we had two outbreaks of Black Turfgrass Ataenius where we counted as many as 125 grubs per one square foot.

Attendance for the Golf Fundraiser, which is mainly organized through the Noer Facility, was a different story. The fundraiser sold out for the first time in the event's history. This had way less to do with the event organizing at the Noer Facility and way more to do with Mike Lee hosting the event at the Meadow Valleys Course of Blackwolf Run. For your information, there are already 20 people who reserved spots for next year's golf fundraiser which will be hosted by Tony Rzadzki at the Bull at Pinehurst Farms in early October. And the price of the event hasn't even been announced yet. Don't be left out next year. A Golf Fundraiser flyer will be mailed out in May.

Now back to my annual review. Another part of the review asks us to set goals for the coming year. Here is a list of some of the items listed that I hope to accomplish in 2003:

- 1. New land
 - Meet with professors over winter to discuss immediate & future needs for the new land.
 - Continue to work with City of Madison to expedite the construction of the surface waterway that will traverse the new land.
 - Work with professors to develop a Hatch Grant proposal for irrigation and maintenance equipment for the first phase development of the new land.
 - Install temporary irrigation and maintenance procedures this spring, for new studies that will be established on new land.
- 2. Budget
 - Develop a better budget expense tracking procedure to manage the facility for the likely state budget reductions.
 - Keep a list of needed supplies for users of the Noer Facility to purchase to more equitably share the real costs of conducting research.
- 3. Facility Management
 - Implement more policy statements for users of the facility (graduate students, summer staff). Policies will include equipment and tool usage, safety, and upkeep of plots and the facility. Conduct regular meetings about abiding by the policies.
 - Upgrade the central irrigation program to the latest version of Sitepro. Investigate mapping the facility with GPS and installing this information into the control program to make the operation of the irrigation system more user-friendly.
 - Find creative ways to continue keeping up the appear-