Poa is friend and foe, depending on where you live and what your golfers expect.

In one of Golfdom's first issues in the late 1920s, a story appeared with the headline, "Poa Annua: Friend or Foe?" The debate continues more than 70 years later. To eradicate or to manage — that is the question.

The answer, according to the experts who gathered in April for the first Avenus "Poa Summit" at the Pinehurst Resort in Pinehurst, N.C., is both. Poa is a friend and a foe, depending on where you live and what your golfers expect. Here are a few key observations from the Summit, which included many of the world's leading turf experts, as well as USGA Green Section agronomists.

Stan Zontek, director of USGA's Mid-Atlantic region, noted that Poa's presence in North America goes back as far as the earliest European settlers. "It probably arrived in the hay and feedstocks of the holds of ships," he says.

Zontek also provided perspective on the plant's hardiness. "Poa annua and its biotypes are the most widely adapted species of turfgrass on the planet," he said. It's present on every continent — including a sample found in Antarctica in 1999 — and has even been shot into space as part of a shuttle experiment.

While Zontek cited the effectiveness of herbicides in the control of Poa in perennial ryegrass and the emergence of growth regulators for use on greens, he made it clear that no management program is perfect. "There is no silver bullet."

Karl Danneberger, turfgrass professor at The Ohio State University, confirmed Zontek's statement about Poa's incredible ability to thrive. Danneberger also cited the work of University of Minnesota turfgrass professor Don White and others who believe that Poa annua is a "continuum" of different biotypes — not a single species — and therefore is a plant that constantly adapts and presents new management challenges.

Bruce Branhm, Michigan State University turfgrass professor, said he believes growth regulators used essentially as selective herbicides present the best option for Poa control in the North. "Post-emergent control makes no sense unless you want dead patches," he adds.

Branham suggested that two to three fall applications of Prograss on new or newer courses offer excellent control in his part of the country. He warned to watch for persistently wet areas where some damage may occur.

Several experts, including Branham, noted that seedhead suppression tends to improve the quality of Poa rather than controlling or eradicating it as previously believed.

Fred Yelverton, turfgrass professor at North Carolina State University, outlined strategies for Poa control in the South, particularly on greens and overseeded bermudagrass fairways. "Annual bluegrass is always a weed, and it simply can't survive summers," he said.

Yelverton and Pat O'Brien, USGA's director of the Southeast Region, suggested the best way to keep dormant bermudagrass tees and fairways clean of Poa without risking triazine resistance is a rotation of simazine, Ronstar and other herbicides.

Mark Mahady, turf consultant in the West, sees the other side of Poa's double-edged sword, where annual bluegrass is considered a highly desirable putting surface. "What are we really doing if we help a superintendent achieve 70 percent Poa control if it costs him his job?" Mahady said.

Mahady also believes that different strategies are required for management of different Poa biotypes and that the use of growth regulators for seedhead suppression enhances uniformity and helps to select for the best biotypes. Pat Gross, director of USGA's Southwest Region, summed up his thoughts on Poa in the West: "Once you reach 30 percent Poa on greens, you might as well push it to 100 percent."

Once you've reached 30 percent Poa on (West Coast) greens, you might as well push it to 100 percent.

BY PAT JONES, PUBLISHER/EIDTORIAL DIRECTOR

PAT GROSS, USGA

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Real-Life Solutions

WILMINGTON CC, WILMINGTON, DEL.

Faith in Fertigation

System improves cost, flexibility of superintendent's fertility program

Although he oversees operations at one of the nation's premier courses — Wilmington CC in Wilmington, Del. — Dan Pierson figures he has plenty in common with other superintendents, even the ones at smaller, less well-known courses. "Whether we're fighting to get dollars or to get rid of dollar spot, we all have the same problems," the certified superintendent says.

High on the list of many superintendents' problems is fertility — how to get the right amount of each nutrient to the place it's needed, when it's needed, in a digestible form and how to practice fertility without disrupting play.

The problem
Pierson struggled to find a middle ground for successful fertility on his course for the past two years.

"If you put down too much fertilizer, you'll be mowing a lot of grass and you'll have slower greens," Pierson says. "That means unhappy members."

Too little fertilizer or the wrong kind of fertilizer can also cause problems, he notes.

The solution
Pierson attacks the fertility problem on two fronts. For starters, he pulls annual soil samples and sends them to a laboratory for analysis. He then follows the advice of the lab's representatives.

On another front, Pierson implemented fertigation. In 1996, Wilmington CC installed a $30,000 DGT-Volmatic fertigation system, which gives Pierson greater control over his program.

With the computerized system, Pierson analyzes conditions daily. He then writes a prescription on his computer, and the system draws the specified amount of the prescribed elements — including nitrogen, potassium, calcium and other nutrients — from three 1,000-gallon holding tanks in the pump house. The system draws fresh water from the irrigation pond and injects it with the elements.

An electrical conductivity sensor measures salt content and nutrient concentration added to the irrigation water. The system adjusts automatically to concentration and ratio settings for up to five tanks. A pH sensor allows for adjustment to water quality with acid, as set by the operator in the system's computer settings. "This system is years ahead of anything else available," Pierson says.

Outlook
The move to fertigation dramatically decreased the cost and increased the flexibility of Pierson's fertility program. He gets better coverage of fertilizer because of the system. As a result, it's more economically feasible to regularly micro-feed nutrients on fairways and even primary roughs, not just greens and tees.

"Fertigation also greatly
Improves plant use of nutrients," Pierson says. "As much as 95 percent of nutrients are available and used by the plant. We're using more calcium and potassium, but we're using as little as one-third the amount of nitrogen we used five years ago before we installed the fertigation system — and we see no visual deficiency in the plant. Obviously, this is better for course playability, plant health, disease suppression and the environment."

Since almost all seasonal feeding is done through the fertigation system, there's additional savings through reduced labor.

"Rarely do we send out the spreaders and tractors and use the extra water needed to water granular fertilizer in," Pierson says. "Never do our members have the disruption that can be part of that."

However, Pierson has problems with dollar spot because of the low nitrogen regimen. "It's the most difficult pest we have to deal with," he adds, noting that he uses Curalan, "which is effective and economical," to combat dollar spot.

"We spend a lot of money each year on fungicides, and it's my responsibility to ensure the money is spent correctly," Pierson says, adding that he rotates several fungicides for resistance management.

Because there's less chance of nitrogen-friendly diseases such as pythium and brown patch, thanks to the fertigation system, Pierson switched from a preventative to a curative approach in disease management.

The fertigation system has improved plant use of nutrients. "As much as 95 percent of nutrients are available and used by the plant," certified superintendent Dan Pierson says.
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   12 10 Golf Course Superintendent
   13 15 Assistant Superintendent
   14 25 Owner/Management Company Executive
   15 30 General Manager
   16 35 Director of Golf
   17 40 Green Chairman
   18 45 Club President
   19 75 Builder/Developer
   20 55 Architect/Engineer
   21 60 Research Professional
   22 65 Other Titled Personnel (please specify)

3. What is your facility's annual maintenance budget?
   23 1 More than $2 Million
   24 1 $1,000,001-$2 Million
   25 1 $750,001-$1 Million
   26 1 $500,001-$750,000

4. If you work for a golf course, how many holes are on your course?
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   31 1 18
   32 1 27
   33 1 36+

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4. If you work for a golf course, how many holes are on your course?
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32 ○ C 27
33 ○ D 36+
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25 ○ C $750,001-$1 Million
26 ○ D $500,001-$750,000
27 ○ E $300,001-$500,000
28 ○ F $150,001-$300,000
29 ○ G Less than $150,000

2. Which of the following best describes your title? (fill in ONE only)
12 ○ 10 Golf Course Superintendent
13 ○ 15 Assistant Superintendent
14 ○ 25 Owner/Management Company Executive
15 ○ 30 General Manager
16 ○ 35 Director of Golf
17 ○ 70 Green Chairman
18 ○ 45 Club President
19 ○ 75 Builder/Developer
20 ○ 55 Architect/Engineer
21 ○ 60 Research Professional
22 ○ 65 Other Titled Personnel (please specify)

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I’m stunned at the number of golfers who believe aerification is something designed to destroy their 22 handicaps. They just don’t understand how important aerification is to golf course maintenance. Then again, many superintendents aren’t helping them understand.

“Aerification” is not a dirty word, but we turfgrass types have helped make it one because we don’t speak up enough about its agronomic importance.

In many cases, superintendents have an overwhelming urge to tell golfers the work they’re doing — even if golfers don’t need to know. But the failure to explain exactly what aerification does undermines golfers’ understanding of its magnitude. That’s why aerification is at the top of the list of things golfers wish wouldn’t be done to their playing surfaces.

Our cause is not helped when Joe Golfer or Mr. Member calls the pro shop for a tee time and is told: “The superintendent just punched greens, so the course isn’t in great condition. But come out and play if you must.” No matter how politely the point is made, the golfer is left with the thought that aerification to any golf course surface at any time is bad.

As is often superintendents’ luck, tines often enter turf when it looks healthy to the golfer. But for agronomic reasons, good-looking turf will have tines pressed in it to keep it looking that way, and it will take a few days to heal.

But none of that matters to golfers, who march into pro shops or whatever offices they can find and complain. In a show of jelly-spined unity, green committees and general managers, who are tired of dealing with golfers’ complaints, order aerification stopped. It’s a vicious cycle.

Golfers must understand that something is being done for the future health of their golf courses. In order for them to understand, superintendents must adequately explain it.

Enlightenment can come from the truth. Here’s what we need to be saying: “Aerification is done to your golf facility on your behalf by your well-trained and well-intentioned superintendent. Aerification allows you to keep playing golf. I’m extremely happy to tell you that because of this sometimes-complicated procedure, we’re improving your course for you — now and in the future.”

Talented turfgrass professionals take whatever resources they can to create the best golf course conditions possible. This is why I lose my cool when I see superintendents and their staffs thrown under the bus every time they make the effort to work their soils. Golfers dare to call their work “big problems” and complain at how “messed up” the courses have become.

Compaction relief, thatch control, increasing water infiltration — these and many others are great reasons to aerify.

My words here are more than merely an agronomic rant. They’re more basic than that. This is my idealistic plea to everyone connected with golf to erase the idea that aerification is bad.

You must explain to golfers that aerifying is the right thing to do — even if it costs them a few missed putts.

You know your golf courses better than anyone. This means doing a few things that hurt for a day or two and pay dividends for months.

You must make better efforts to make everyone understand the importance of aerification. Finding ways to do things better, faster and cheaper is your ongoing duty.

Aerification is not a dirty word. Superintendents who know this and can talk about it make golf a better sport.

Dave Wilber, a Sacramento, Calif.-based independent agronomist who continues to make the world a better place for aerifier tines, can be reached at dave@soil.com.
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Trimmer Maintenance

**Invest in good upkeep for long-term use**

*BY FRANK H. ANDORKA JR., ASSOCIATE EDITOR*

With the advent of the under-$100 trimmer (the kind you buy at The Home Depot), Pat Curtiss, vice president of technical and statistical services for the Outdoor Power Equipment Institute, understands why superintendents treat trimmers as disposable items.

But because superintendents must always keep their courses in peak condition, Curtiss advises them to invest more money to buy sturdier machines. The result will be trimmers that last up to six times longer (three years), since the under-$100 trimmer generally last six months under normal use on a golf course, Curtiss says.

"Superintendents can't behave like homeowners," Curtiss says. "Homeowners don't care if machines break and they don't replace them for a while. On the other hand, many superintendents must maintain their courses perfectly all the time. If their equipment goes down, that's harder to do."

There are other advantages to purchasing sturdier trimmers. Curtiss says a well-maintained trimmer will use less fuel and therefore cost less over the long haul. In fact, cost savings from fuel efficiency will pay for the initially larger investment in a more durable machine, Curtiss says.

"The industry has worked hard to lower noise levels and cut greenhouse gas emissions on trimmers to help users meet tougher standards," Curtiss says. "But if you don't maintain them, you won't take advantage of those advances in trimmer technology."

Curtiss suggests the following tips for superintendents who want to keep trimmers in near-perfect condition:

- Use high-quality, two-cycle engine oil specifically for two-cycle handheld equipment (where applicable). Lower grade oils or those for outboard boat engines will not provide sufficient protection.
- Add fuel stabilizers to the tank. Stabilizers can help fuel maintain a high-octane level for longer periods, giving easier starting and cooler engine performance.
- Disconnect the power and thoroughly clean outer surfaces. Clear all intake and exhaust vents.
- Empty vents, ducts, vacuum tubes and other attachments of debris.
- Before using the trimmer, carefully balance and adjust it for operator comfort and safety.
- Inspect the trimmer periodically for potential hazards: loose belts; missing or damaged guards; and accumulations of grass, leaves or excessive grease to reduce fire hazards.
- Seek the professional advice and/or service of a qualified service dealer for problems.
- Take your trimmer to an experienced service dealer annually for a safety and maintenance inspection.
- Hang or store according to manufacturer's directions.

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Leaders

PEOPLE ON THE MOVE

International Golf Maintenance promoted three superintendents to regional positions: Gregory Mackintosh, formerly with Widow's Walk GC in Scituate, Mass., oversees Northeast operations; Steve Gano, formerly with Valdosta CC in Valdosta, Ga., oversees Southeast operations; and Jason Moore, formerly with Twin Rivers GC in Oviedo, Fla., oversees Central Florida operations.

Seed Research of Oregon hired Bryan Muntz to oversee its sales efforts on the West Coast and Plains states from Kansas north to Canada.

The Ridge at Back Brook in Ringoes, N.J., named Michael L. Scott as superintendent.

NOTABLE ACHIEVERS

The following superintendents were certified recently: Billy Huskins, Fiddlesticks CC in Fort Meyers, Fla.; Scott Anagnostelis, Angel Fire Resort in Angel Fire, N.M.; Michael Brian Aaron, Azalea City GC in Mobile, Ala.; Scott Hines, Baltusrol GC in Springfield, N.J.; Guillermo G. Gonzalez, Club Campestre Monterrey in Monterrey, Mexico; Todd Miller, Dominion CC in San Antonio; Andrew T. Pearson, Eaglemood CC in Hob Sound, Fl.; Steve E. Anderson, Greenville CC in Greenville, S.C.; Timothy A. Miller, Highland Hills GC in Greeley, Colo.; Mark P. Stephan, Rob Roy GC in Prospect Heights, Ill.; Mark T. Hanus, Wheeling CC in Wheeling, W.Va.

Milliken Turf Products hired Geoffrey Simril as senior technical account manager.

Philip J. Tralies was named president and CEO of Club Car, replacing A. Montague Miller, who retired in May.

Wally Boilek joined Becker Underwood as a national accounts manager. The company also promoted Wally Boilek to national accounts manager and Mike Sherman to business development manager.

PBI Gordon Corp. named Mark Miller as sales manager for its turf, ornamental and agricultural products division.

Let us know about your people on the move. Send information/color photos to Golfdom's Frank Andorka at 7500 Old Oak Blvd., Cleveland, 44130. Fax information to 440-891-2675 or e-mail to fandorka@advanstar.com.

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