

Coordinated by Cathy Miles Ralston *Editor*

The Drought of 2005

While I don't have the hardcore scientific background to comment on the weather with any real authority, I am a bona fide "weather geek" and a avid Tom Skilling fan. I've been known to drift off to sleep watching The Weather Channel. This personal passion comes at least in part—I believe—from growing up in a family immersed in the golf business. Not just golf course conditions, but superintendents' and staffs' psyches, are deeply impacted by extreme weather.

This summer, Chicagoland's extreme weather—a drought to rival, even surpass, that of 1988, paired with occasionally scorching temperatures—has been front-page news. As each week passes, the prognosis seems worse. The rainfall shortfall only grows. Hurricane Dennis proves to be a big tease. Finally, a line of thunderstorms does NOT disappear as it nears the metro area—but the rain, ranging from half an inch to over an inch in spots, barely makes a dent in the cumulative deficit. Are 100° temperatures looming? Is the forecast for cooler weather thereafter signaling a collapse of the weather pattern that has left us high and dry this season, or will it be a temporary respite? I've watched and read the meteorological dispatches ever mindful that these conditions have a huge impact on the industry in which I work.

As a homeowner, you have some wiggle room. For the last month, I watched our lawn gradually brown out

despite my husband's efforts to salvage our sun-baked front yard and finally suggested, "Let's concentrate on the flowerbed and vegetable garden and forget trying to keep up with the grass for now." Homeowners have that luxury, as John Gurke underscores below. "At a golf course, you can't give up your playing surface," notes John.

During the week of July 18, I spoke with several MAGCS superintendents about their experiences and coping techniques this summer. Despite different environments—public versus private facility, newer versus older course, municipal versus privately owned, stellar versus barely adequate irrigation system—they expressed some common sentiments as well as some interesting observations and suggestions. I thank them for taking the time out of their intense work schedules to share their challenges and insights with the readership of *On Course*.

-CMR

Dan Dinelli, CGCS **North Shore Country Club** **Glenview, IL**

Fortunately, we have a 1,500-foot deep well that gives us 500 gallons per minute of pretty good irrigation water. We're blessed with that. As of mid-July, we have already gone through 20 million gallons of water and in a normal year we go through 13-23 million gallons total. That demonstrates clearly the drought conditions and the need for water. We water approximately 15 yards into the rough. Our inner rough is completely dormant right now.

We're struggling to keep up with trees and shrubs that have been planted in the past three years. We've been using the green Gator bags to help us keep them watered during the drought. Dutch Elm disease is also active now. We've had to take down three mature trees and many smaller "wild"-growing elms. Typically, you have time to react upon first symptoms of the disease. In this weather



Photo courtesy NSCC

This comparison of no. 15 fairway at North Shore Country Club during the drought of 1988 (left) and drought of 2005 (right) reveals the difference a newer, well-designed irrigation system can make.

pattern, when you first see symptoms, you have about three days until the whole tree is showing disease. Dutch Elm disease is heightened with this weather pattern.

We've also been using a fair amount of various wetting agents and penetrants to help with water management. So far we're holding up really well, ironically because we haven't gotten the rain. But, it's very challenging to maintain healthy soil gasses and prevent salt buildup during

times like these because you're chronically watering, not purging the soil like natural rain would. The best thing to do is keep it as dry as you can. It's weird to talk about good drainage during droughts, but we try to vent our greens at least once a month with aerification. My biggest fear right now is getting a heavy rain during high heat and humidity because then I lose control. To have a true cold front bring the rain, and if

(continued on page 22)

the rain came with change of temperature, that would be welcome. But during hot, humid weather you often get these violent thunderstorms and it doesn't bring any relief, just dumps a bunch of rain—violent, fast rain—and those are the ones that can hurt you unless you have well-drained soils and properly built USGA greens with internal drainage. But we have old pushup greens with a high percent *Poa*, so if I had my choice, I'd rather control the moisture during hot humid days.

The drought is a double-edged sword like many things in the business—it has taken its toll and presents its set of challenges, but there's some compensation. We've had some disease, mainly dollar spot, but since we have control of the water, disease pressure is not as high as one would think. I haven't seen any of the more devastating diseases like brown patch or pythium so far.

Eighty-three, '88, and '95: those are the years that stick in my head. It all boils down to water management and drainage. If we had taken aerial photos here in '88, when my dad was superintendent, you would have seen drying triangles clearly in the fairways. We had a

much less efficient irrigation system and fewer tools then. We learned a lot of lessons in '88 and again during '95 and since, we've gotten better at managing these patterns. So far this year we've had some relief at night with lower temperatures, though we're starting to lose that. But we have had a breeze most days, bringing decent air movement. You can go out during the day and syringe turf, giving it some relief as long as there's air movement. In '95 we had fans around the greens because there was no air movement.

I feel for the poor guys that are getting their water shut down or restricted. In northern Illinois, we've been buffered from some of the water-management issues that are at the forefront of our industry because of Lake Michigan and generally good aquifers, but at North Shore we've had to document water usage for the last eight to ten years. I think they are going to ask us to use water sparingly and use this information to help monitor usage in the future. Governor Blagojevich is putting together a water-use task group to start studying water use in Illinois and there is merit to this: we should be using water sparingly.

Scott Witte, CGCS Cantigny Golf Wheaton, IL

It's been a fun summer to grow grass.

Our biggest issue with this season is that since May 20, we've only received a little over a half-inch of rain. It doesn't matter what kind of irrigation system you have—all its inefficiencies show up and it's a struggle to keep up with high dry spots and low wet spots. What's frustrating is for every dry spot you hand-water, there's another one right around the corner. There's no light at the end of the tunnel.

We use effluent water from the Wheaton Sanitary Plant and we've been pumping 500,000 to 1 million gallons in a 24-hour period into our irrigation reservoir. Since May 20, we've pumped over 35 million gallons of effluent water into our pond and subsequently out to the course. I'm fortunate to have plenty of water, but my water comes with high salt and high chlorides and in this type of weather you don't just manage hydration but also moving the salts through the profile—which means more interventions than you normally would be taking. We have to make sure it's applied properly and flush greens to move the salts through.

The biggest challenge is to keep the staff motivated. As a detail-oriented staff, we tend to only focus on the little things that we see wrong with the course, and sometimes we need to sit back and think, there's a lot of good-looking green stuff out here. Your average golfer knows it's been extremely hot and dry, and we've actually been getting a lot of compliments. Maybe that's a reminder to us that we need to appreciate the majority of good grass and not the small areas that need a little help or aren't quite up to snuff. Usually we can spend more time on the details: edging bunkers, detail trimming, things like that. A lot of those labor hours get consumed by guys dragging hoses. Our hand-watering manhours have just been through the roof for the last month-and-a-half.

Back in 1988, I was a student intern at Meadowbrook Country Club in Northville, Michigan and got an emergency call from my super say-

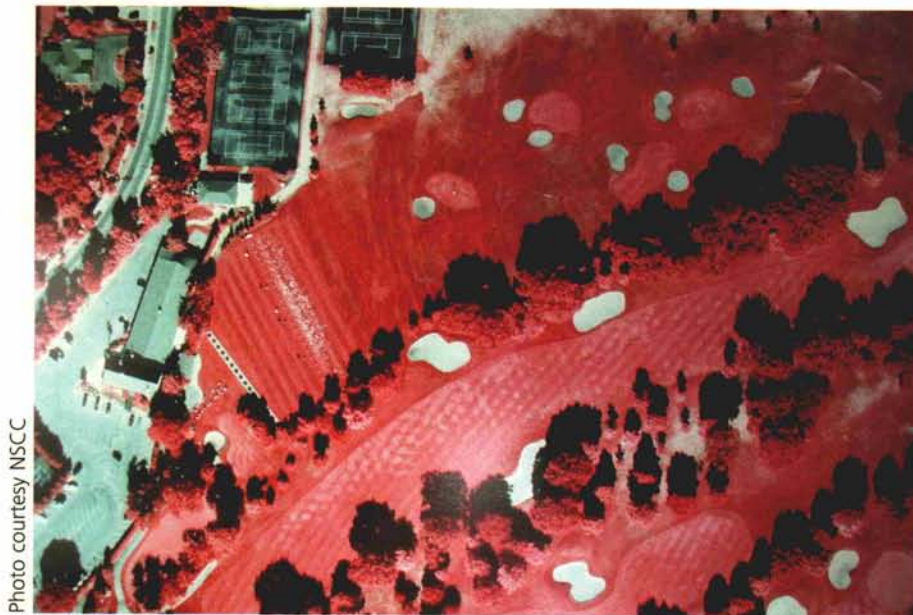


Photo courtesy NSCC

This infrared, aerial photo of one section of North Shore C.C., taken during drought conditions this summer, shows where turf is drier, under more stress (lighter red), versus greener, under less stress (darker red).

Says Dan Dinelli, "I wanted to document the course from a bird's-eye view to visualize irrigation performance and stress areas via cart traffic wear, localized dry spots, tree root competition, etc.

The various shades of red tell an interesting story."

ing, "Drag your hose over here to 18, the rough's on fire!" A member had flicked his cigar in the rough; it started burning and was spreading rapidly. Any area that's not irrigated at all is like straw. We have a few areas like that this year, and the last thing they need is an old cigar!

I came to Cantigny in 1995. It was the worst kind of summer to go from being the assistant at an 18-hole club to head superintendent at a 27-hole facility. The grass just cooked. I definitely learned some things from 1995, though. When I look back, it's been 10 years, I'm still here, still alive, and all the grass that didn't look great in 1995 came back. Everything goes full circle. The grass will recover. Not every square inch of the golf course will look like a million bucks but things will come back inevitably.

Above all, I'm trying to maintain proper perspective, something we all need to do—not forgetting that I have a wife and kids who need equal amounts of attention. Before you know it, their summer's gone and your summer's gone. When you work really hard, make sure you put a lot of energy into your family—I'm trying to do this, and I don't always succeed. My family is very understanding; they know it's a difficult summer and I need to put in hours here. But when it's family time, it's family time. I guess it boils down to the fact that I know my sole identity is not just in how green my grass is.

**John Gurke, CGCS
Aurora Country Club
Aurora, IL**

I've been telling people that this summer for me has been like the movie *Groundhog Day*—I wake up everyday and it's the same exact thing all over again. It's been discouraging this year, watching the Weather Channel and other weather radars, to see that green blob coming from the west only to have it disappear as it gets closer to us. This feels like the most difficult year I've had. It's not just the drought. June was one of the hottest Junes on record. At a course with a bunch of *Poa annua* on it, it's the heat that kills me. We're probably 70% *Poa annua* on greens, tees, fairways—and "treed in" too.

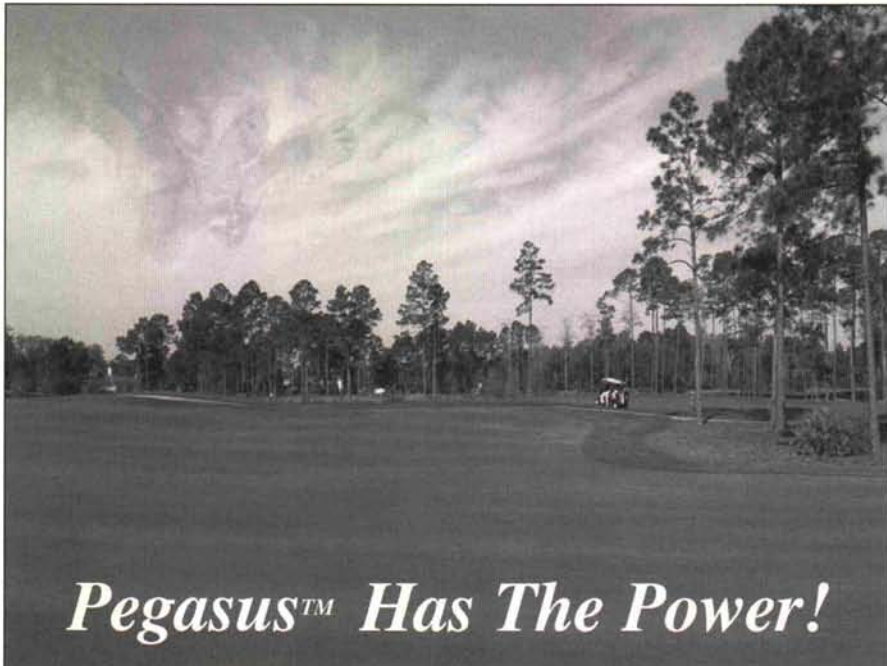
This summer has also been the story of the haves and have nots: who

has well water that has not gone away, versus who relies on a river or the flow of a watershed. Those guys are having a terrible time. The Fox River is so far down and they've closed the locks up north—those guys are having a hard time with water supply. At Aurora, we have our own well and so far it's been fine—our problem is not water supply, but distribution. We have an older irrigation system that can only do so much. Our system is more designed to supplement normal rainfall and this year, it is the sole source of water for the golf course. It's been that bad. So

you can look around and see how poorly it does cover in certain areas. Coping usually entails as many people as I can send out with hoses to hand-water and hit the spots that don't get hit by the sprinklers.

I had one day where I put one guy exclusively on hose repair. It's hard to find 1" hose in Chicago right now. Everything needed to distribute water is in short supply, too—hoses, nozzles, quick couplers. But it's a good year to sell an irrigation system! Our members here are convinced

(continued on page 24)



Pegasus™ Has The Power!

Pegasus L and Pegasus DF brand chlorothalonil are high-quality formulations used to rein in an extensive variety of turf and ornamental diseases. You can depend on Pegasus to be the foundation of your disease control program. No matter which formulation you choose, you'll get a multi-site mode of action. So remember, when it comes to protecting your turf and ornamentals,



Pegasus has the power!



www.phoenixenvcare.com



© 2005 Phoenix Environmental Care, LLC. All rights reserved. Pegasus is a trademark of Phoenix Environmental Care, LLC. Always read and follow label directions.

finally that they need perimeter green-bank irrigation because we don't have it—we've been hand-watering those areas to avoid getting swampy in the middle of the green. And the bunkers are powdery dry and very hard to get out of.

My budget will be affected in labor and electricity, because of the amount of time the pumps are running. Other expenses come into play, though. You think with a drought you don't have the disease pressure, but I'm basically overwatering and creating a very fertile disease bed so here come the fungicides. And, we haven't even looked far enough into the future to assess the repair—how much overseeding of rough will need to be done? Or if it gets really heinous, the expense of losing greens or replacing trees and shrubs that aren't irrigated. Speaking of trees, we have probably 15 memorial trees out here that aren't that old. We've been remulching those to cover up the base and hold water in, and root-water them all. Right now we have a huge Japanese beetle crop that is skeletizing trees. I'm sure we'll see early fall color and early leaf drop. Whereas in a home situation you can give up on the lawn and concentrate on your trees, flowers, what have you, at a golf course you can't give up on your playing surface. As the summer goes on, your areas of priority shrink.

In my own situation, the members have been very understanding and appreciative of our efforts. They've seen before how this course reacts to heat and drought. My worry is, it's only July 19 and it could get so much worse. Right now we're holding on by a thread every day. You get a bad feeling in your stomach that something's going to be horrifically wrong when you get into work each morning.

I started out coaching my kid's baseball team and finally had to give up. I'm tired. Work is emotionally and physically draining. I'm either here at the course or home in bed. Julie's been great taking care of the household stuff and leaving me to my golf course and my sleep.

Yes, it's pretty sad when the most exciting part of the day is watching a cloud come and cover the

sun for a couple hours. We don't even think it's going to rain on us, it's just going to shade us for an hour or two—and that's awesome. That's the kind of year it's been.

**Derek Florian
Fox Valley Country Club
Aurora, IL**



The 6", diesel-powered pump Fox Valley Country Club uses to draw irrigation water from the Fox River.



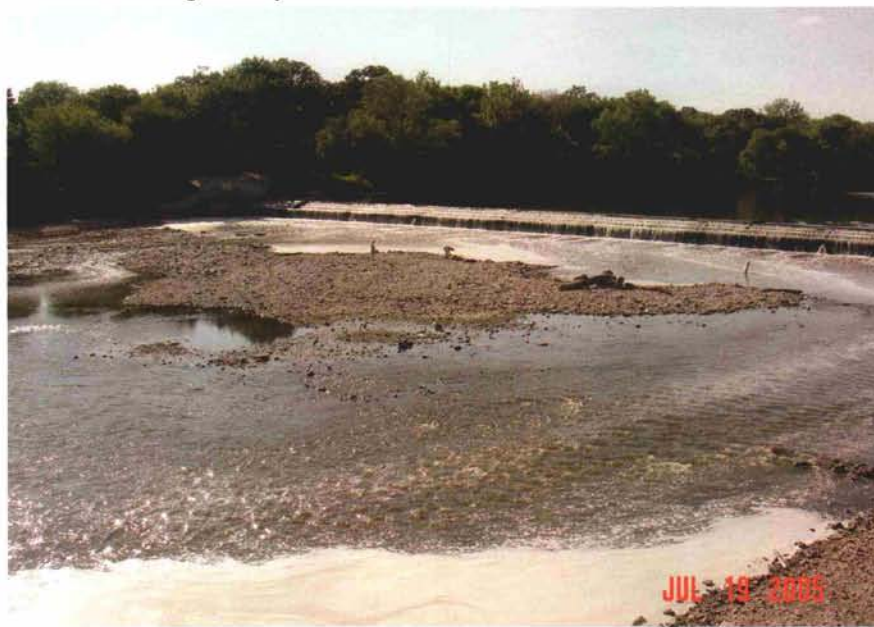
Conditions at Fox Valley C.C. belie the severe drought and older irrigation system.



Greens are largely Poa at Fox Valley.

Along with Phillips Park, we are one of two city-owned public courses in Aurora. We draw our water from the Fox River and about a month ago (mid-June) it was at its third-lowest level ever. We're now at catastrophic levels. I'm using a 6" manual pump powered by a diesel engine to get water into my ponds. Right now the water is not even flowing over the dam in North Aurora so I don't know how much water I have left. This impacts the gallonage I can add to my irrigation pond everyday. We're putting out 250-300,000 gallons per night and I can't restore that amount because of limitations from the pump. And due to the water levels being so low, you can't pump water quickly. We can replenish maybe half of that amount, 150,000 gallons.

We have a single-row irrigation system in the middle of fairways and have a semiblock system on putting



This image of the Fox River, taken July 19 in North Aurora, vividly illustrates the catastrophically low river levels.

Photos by Derek Florian

greens, so instead of two heads at each corner of the green, I have one head. I have to make a decision every day whether to water with hoses on the green. I guess the resources I'm dealing with are not comparable to a lot of golf courses, but even if I had the resources, we are all feeling the same effects from these weather conditions.

I'm going to get to a point if the summer continues like this where I'll have to make a decision: Do I just keep greens alive, or greens and tees alive, and do I give up the fairways? We have bluegrass/*Poa* fairways. Tees are bluegrass/*Poa*, greens are mainly all *Poa*. My roots on my *Poa* greens are about half an inch deep. Nothing has died yet, but I am coming to the realization just today that due to the fact that we may be looking at 100 degrees this coming weekend (July 23-24), it will be pretty detrimental to a lot of golf courses. It's going to be a tough weekend.

Despite the conditions, we've had some tremendous compliments. You would never know that this golf course has a water problem by the way it looks and I think it's a testament to all of us working hard out

here. Yesterday, in fact, two guys came up to me and said with a distinct accent, "Are you the golf course superintendent? We're from Scotland, and we were at the British Open the other day, and this golf course—a public golf course!—is beautiful. I can't believe how good of a job you're doing seeing you have no water." Even on their television overseas, they've been broadcasting about our drought. This encounter really raised my spirits big time. Here were two guys from where golf originated telling me that my little municipal golf course looked great. It was a wonderful compliment.

In weather like this I see my office about 10 minutes each day. I'm syringing as we speak. I'm spending at my job on average anywhere from 12-16 hours per day, seven days a week. I don't have an assistant, so it's just me and eight guys. In the end it comes down to a pride thing. You get it in your head that you're not going to lose. That's why I wanted to be a superintendent. I get to work with my hands and see my results every day. Faced with adverse conditions, it's good to go home and pass out in

the bed and know you won the battle that day.

I guess, though, there are times you have to say there's not so much more I can do. I know that I can grow grass even in dry conditions without a lot of water. If we can get to August 15, 20, we've made it—but this year I don't know if we're going to make it that far.

Looking into the future, I'm convinced adding a well here would give us a contingency plan for when the river goes low, like it is now—or when the quality of the water is less. With decreased water flow, the water we do pump in is more stagnant, with more bacteria and algae. I've done a lot of research, looking at as many sources as I can to see where we're at, and a well would give us the opportunity to have a second source of water. You can go 1,600 feet in the ground in this area to get to St. Peters Aquifer, one of the largest in the country. Or you can go 200 feet and have a limestone aquifer that's a lot smaller. The level of some of those aquifers right now is very low. I've heard from homeowners that wells

(continued on page 26)

Your needs...of course!





YAMAHA

We now have five Yamaha Utility Vehicles to choose from. Choose one for the moderate tasks or very demanding jobs that your course requires.

- Sales
- Parts
- Service
- Leasing
- Accessories

www.harrisms.com

Prepare for this season!
Harris Motor Sports can help keep your course looking its best!

Land Pride



Harris Motor Sports is pleased to carry the Land Pride Treker with a 20 HP Honda Engine. This off-road light utility vehicle is available in 2 or 4-wheel drive and in narrow or wide stance. Capacity is two full sized passengers with up to 1300lbs payload in its dumping box.



HARRIS GOLF CARS
 SALES & SERVICE
 A DIVISION OF HARRIS MOTOR SPORTS

590 Heartland Drive
Sugar Grove, IL
(630) 466-5239

HOURS:
 Monday—9-8 • T-W-Th—9-5
 Friday—9-8 • Saturday—9-3

between 90 and 200 feet deep are drying up. It comes down to how much money you want to spend.

This is only my second year as a head superintendent. The first year it was easy to impress everyone . . . now comes the trial. In conditions like this, my best advice is to get a buddy system . . . call your buddy who's down the road and commiserate. "My golf course is dead, no mine is more dead than yours." It's a sanity check. We all have a common interest, and it's better to go through it together.

Oscar Miles, CGCS The Merit Club Libertyville, IL

I'm so fortunate to be at a golf course that had the opportunity to build with modern specifications for good drainage underneath as well as at the surface. We're just putting out little fires here and there. We're blessed with good bentgrass and when it's warm, it likes it. I actually like it dry. I do not like it when it's wet because then, more diseases are active. Right now it's just a matter of keeping enough moisture in the plant for the playability of the course.

We're also lucky we have a well to a deep aquifer and we can keep up the level in our irrigation lake from the well. It takes 24 hours for the well to replenish what has been used. Our pump has been running almost constantly. In June, the electric bill was the highest I've ever seen, \$5,600 for irrigation alone. But as long as you're having good results, the club isn't saying anything.

During these conditions, we shift to a lot of evening mowing when there's less stress. When the surface temperature gets to 90°, we get off the course; when it comes back down below 85°, we go back out. We drive around the course and look for localized dry spots, then the interns go out with Cascade wetting agent—they call it soap and water. They keep watering until they can get a screwdriver down four inches.

On the greens, I normally put half an inch on the greens twice a week, which is enough to rewet them and get water movement down through the profile. Now with the heat, we have to go to 3/10" every other day . . . but that doesn't give

me the deep penetration I want. So we go out with shower nozzles on ridges and give them extra.

My most important concern right now is the roots: maintaining viable, healthy, white root as much as I can. It's natural for it to start to die, but if I have three or four inches of good root I can produce the surface the players want. The past few days, we've stopped double-cutting and went to light rolling for the second cut to maintain speeds our golfers got used to. The days that I don't water, I just lightly roll after I single-cut. I've been getting a lot of thumbs up.

I'm also keeping in mind the soil condition called anaerobiosis, lack of oxygen, and the methane gas builds up from decomposition of the sulfur and organic matter, and when that takes place the soil turns black. The iron and this chemical composition seals the green and the roots can start to suffer from the methane gas that gets produced. When soil temps get about 69 you start seeing this. I even see it in our sand greens. I call it chunky black layer when it starts, an indication to me that we need to punch them to release the gas. We try to do that once a month early in the morning.



Photos by Judd Hansen, Merit Club

A little drought relief comes, but at what cost? The Merit Club was ravaged by severe weather on July 20, resulting in the loss of at least 12 mature trees, including two huge, 200-year-old burr oaks behind no. 12 green. "Just when we are proud of how things are going in the summer heat and drought, Mother Nature has a way of bringing you back to reality," notes Oscar Miles.

Our transition rough was specified for being a low minimum-maintenance grass. It doesn't require a lot of fertilizer or water. But even that got to the point where it had to have a drink. About 10 days ago (early July) we had that 9/10" that really helped. We're trying to keep it from going what I call "brittle dormant"—when you walk across it and the grass crunches. This year is the first time I put a notice on the carts asking golfers not to drive 10 yards **outside** the fairway. I want them to stay inside the fairway where we have good water management. That's the place we aerify and treat.

Right now there's a great contrast between the brown prairie and the transition rough. The water we put on the edge of our prairie could penetrate better. We've been getting more viney weeds in the prairie this year which could indicate a future problem. I'm waiting for rain to intervene because I don't want to stress the desirable plants.

Yesterday (July 17) we had a few areas where we had pythium and brown patch working outside the areas of the tees. We're constantly overseeding there because the sod from the tee moves out and tries to get integrated with the bentgrass. With that area being weaker, that's a good place for active fungus to get started. We had to spray around a few of these tees that had the disease symptoms. I just spent two hours revising our disease control for the next two weeks because we do things to control *Poa annua* but there are times you have to back off because we don't want to stress the bent too. As a superintendent, you earn your money now.

How does this year compare with past summers? Eighty-eight was interesting, a warm, droughty year. I was at Butler National, and Oak Brook was on water restrictions so we had to do a lot of hand-watering. I didn't have a good water source like now. Plus Butler has lots of trees and lacked air movement. The press called several times wanting to know what we were doing to keep the course playable for the Western coming up. It was a different course.

As for '95, it was probably hotter, but I think we may catch that. The Merit Club was more youthful then so it had better resistance. Now

that the course is older and has more thatch, you invite more bugs—yet another factor to work in. This morning I saw my army of birds, hundreds of birds, going from the tee down the fairway flying down the next hole, picking up Japanese beetle adults and cutworms. The birds help me reduce the use of materials on the fairways if I let them do their work as long as they're not opening up the surface too much. I think this year is going to be the year of grubs. We're trying to protect the grounds for cart traffic, but in every area we water, the Japanese beetle grub is attracted to moisture to lay their eggs. In a couple months they'll have their larvae eating up the roughs. I told the interns to watch where the swarms of birds are at as potential hot spots with grubs.

I'm just waiting for a soaking 2-3" rain—then we can start getting back to what we usually do!

**Brad Anderson, CGCS
Midlane Country Club
Waukegan, IL**

My strategy is always to begin my season letting the entire soil profile dry down so the roots will bore and reach deeper for water, setting up for a deeper root system. The problem with that, in a year like this, is rains that never came. I almost always will get good spring rains—in May and June—to recharge the soil with moisture before the onset of the summer. This year those rains never arrived, so I entered into the drought with some already very-dry areas. We've been

hand-watering with wetting-agent pellets to charge the areas that have developed severe localized dry spot.

The challenge in these situations is that the soil will not accept water as fast as the grass is using the water. My irrigation system can deposit as much or more than what is withdrawn on the dry days—but in one night of watering the soils here will not absorb the full deposit that you need to make to cover the withdrawal. Mother Nature has a much more efficient system of using water than receiving water. This is a year that underscores the need for wetting agents and aerification, to help water penetrate and move through soil. Also, the importance of having a system that allows you to cycle the sprinklers for six minutes on, and an hour off, for soak-in.

A difficult year like this is supposed to teach you something and make you smarter. I think I will continue to allow the course to dry down in the spring, but I won't bank on a spring rain anymore; I will schedule some deep-flushing irrigation cycles much earlier. Also, I have noticed that the native plants are all doing fairly well, it's the exotics that are suffering. Maybe one of the lessons that we should all take here is to give some consideration to years like this when choosing species to plant on our courses.

(continued on page 28)

Call. Get Answers. Relax.
Repeat as necessary.

Solutions and supplies for your turf care needs.

Reinders Bruce Schweiger
608-206-3500

Randy Wahler, CGCS Knollwood Club Lake Forest, Illinois

I've been doing this for 30 years and keeping records. Certainly this year will be one we remember and talk about. Seventy-six, '83, '88, '95, '99—and 2005 will go right with them. Eighty-eight was by far the driest year I've ever had. But in April, May and June of this year, we had 3" less rainfall than the same period in '88. July of this year will wind up equal to or a little drier than '88.

Knollwood installed a new Rain-bird irrigation system in fall 2002 and this year, the first year we've really tested it, we've found out it's excellent. It's performed beyond expectations. We have two wells, one deep, one shallow, and the shallow one is getting low. This is the first year we've tapped into city water since 1988.

But sprinklers aren't rainfall, not even close. They were intended to get you through a drought of two to three weeks. You see in one area 20 feet from the sprinkler head that the water isn't penetrating the thatch. Forty feet away, you see areas that are too wet and ripe for disease. Whenever you combine drought with high humidity and temperatures, you're damned if you do and damned if you don't. You need to irrigate, but if you irrigate with high humidity at night, you'll have disease problems, pythium being number one. We're spraying more fungicides than we have in the last five or six years. We're doing a lot of spraying on fairways preventatively for brown patch and pythium.

These weather conditions are taxing everything: irrigation systems, management skills, decisions you make. I haven't had a break. It starts to wear on you. In this business, you make a slight mistake, it starts to snowball. You have to be ahead of yourself, thinking, how does this decision affect conditions down the line? Constantly concentrating on it after a while wears you down.

It's been '99 since we had such a tough period that we're facing this weekend (July 23-24) with the forecast high temperatures. If it only lasts for three or four days, it isn't bad. If it's seven or 10 days with night temperatures above 75° and daytime temperatures above 95°, that's

another matter. When soil temperatures reach 95-100° at the 1-2" level, shallow-rooted turfs are very susceptible to just dying off. Even bentgrass will start to thin off at those temperatures. Knollwood is about 80 years old, and we've converted the greens to mostly bentgrass—but the fairways are still about 50% *Poa*.

My target date is August 15. If I can get to August 15, I'm over the hump. The nights are longer and cooler, that's the key, and the plant has a chance to recuperate at night, strengthen a bit, and it can withstand higher extremes during day. Plus the extremes are for four or five hours a day versus eight or nine in July. I call the period from July 15 to August 15 "the war" and we're in the middle of the war right now.

I do love the challenge. The people who are really into it, I think we enjoy the challenge. But I couldn't handle it 12 months a year. I wouldn't want to do this job in Florida or the desert. I love the seasons—the winter preps, fall projects, spring startup—and this is part of the summer. Sometimes this is what we get. For the last five years, we've had

pretty easy summer conditions. We were due for a year like this.

There are positives to a year like this. The press has done a very good job of informing people of weather conditions. With front-page headlines about drought and heat coming on, people start to develop more respect for you. In years like this, people see their lawn, it looks like hell, and then they see how good the golf course looks and how good the superintendents in Chicago are. And extremes draw on your talents to see what you can really do.

Sometimes you make mistakes; everyone makes mistakes, but you hope you don't make too big a mistake. Just concentrate on the task ahead of you and do the best you possibly can. And remember that a lot of this business is luck. Somebody 10 miles south of me could've had two inches of rain yesterday and with the conditions looming ahead, they may have turf loss. But it's all part of the business—occasionally we have these years!



Raymond Hearn
Golf Course Designs, Inc.

How may we help you?

- * Remodel Master Planning
- * General Consulting
- * One Day Evaluation Visits
- * Personal Service
- * Award-Winning Designs

616.399.7686 www.rhgd.com ray@rhgd.com
372 Highbanks Court Holland Michigan 49424

where Exceeding Expectations is Standard Practice