Scientific name	Common name	Typical use in U.S.
Agrostis capillaris	Colonial bentgrass	Golf course fairways (rare)
Bromus inermis	Smooth bromegrass	Forage
Cynodon dactylon	Common bermudagrass	Turf (southern U.S.)
Dactylis glomerata	Orchard grass	Forage
Festuca arundinacea	Tall fescue	Turf, forage
Festuca ovina	Sheep fescue	Turf
Festuca pratensis	Ryegrass ¹	Turf (Europe)
Festuca rubra	Red fescue ²	Turf
Lotus corniculatus	Bird's Foot trefoil	Forage, erosion control
Paspalum notatum	Bahiagrass	Turf
Phalaris arundinacea	Reed canarygrass	Forage
Phleum pratense	Timothy	Forage, (Europe-also turf)
Poa trivialis	Rough bluegrass	Turf
Poa pratensis	Kentucky bluegrass Smooth-stalked meadowgrass	Turf

Table 1. A partial listing of turf and forage species which are on the Alien Plant Working Group list of invasive weeds (from http://www.nps.gov/plants/alien/sciname.htm)

This is the wrong common name but is listed as it appears on the website. The correct common name is meadow fescue. If ryegrass was intended, then the genus name should read Lolium.

² Three subspecies exist: F. rubra rubra (strong creeping red fescue), F. rubra longifolia (slender creeping red fescue), and F. rubra commutata (Chewings fescue).

ply happen to be alien species but may actually have functional purposes in our environments which cannot readily be replaced (e.g., Kentucky bluegrass for fairways).

Item 4: Certain turfgrasses are on existing lists. According to the definitions in the executive order turfarasses do not warrant status as invasive weeds. Turfgrasses do not generally thrive in non-managed environments-they require mowing, fertilizing and sometimes irrigation and pest control to keep them surviving. Mowing removes reproductive structures (seed), ensuring the plant stays non-invasive. Turfgrasses benefit the environment by inhibiting erosion from areas such as roadside banks, provide dust control at airports, and filter pollutants from air and water. Turfgrasses provide recreational areas and are less likely to support rodents near homes and schools than unmanaged "natural" areas. There are no native plants which can replace existing turfgrasses throughout the U.S.

Item 5: Most of the population does not live in a natural environment. We have shaped the land, removed topsoil, and drained wetlands in many areas while attempting to create wetlands elsewhere. People require manicured greenscapes for recreational and functional purposes. We have removed animals from areas which may have been important pollinators of native species or kept native species from being invasive themselves. Human activity has likely altered global and regional climates, and evidence is increasing that we continue to do so at an accelerated rate: can native species thrive in all areas under these conditions? Many of the alien species which have adapated to North America now perform vital functions, such as the use of perennial ryegrass for children's soccer fields. In many cases there are no native species which can take the place of alien species in our many environments.

Item 6: Federal and state lists need to be developed by knowledgeable persons using research data and mapping information for their decisions. A risk-benefit analysis will be necessary for some species such as Kentucky bluegrass. A complicated species analysis will be required where Poa annua is concerned: by law, a noxious weed must be removed or prevented from seeding. How will this be accomplished when P. annua is found throughout Wisconsin, and can set seed even at putting green height?

What you can do. Stay abreast of current developments. Support your seed/green industry organizations by participating on committees, writing letters, and garnering support from within and without your specific industry. Promote sound judgements on the state invasive species councils by nominating and encouraging knowledgeable, unbiased representatives to be appointed.

If the seed, crop, and green industries act swiftly and intelligently, we can help ensure Executive Order 13112 will be enacted to help the environment as it was intended, and without shredding the golf course community.



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The Other Side of the Coin

By Doug Vogel, Golf Course Superintendent, Packanack Golf Course

Editor's Note: We have read a lot about soft spikes in the last few years, and in my career, they have been among the best innovations to improve putting green quality. But, as Doug Vogel points out in this article from The Greenerside, there are other view points. His article appears here with permission from Ken Krausz, editor of The Greenerside, publication of the official Golf Course Superintendents Association of New Jersey. It was September/October 1999.in Volume 22, No. 5 issue of The Greenerside.

"All the ballyhoo over spikeless golfies is just a bunch of poppycock," claims Professor Emeritus Chamberlain of the Department of Interdisciplinary Turfgrass Culture at Kent University located in Croton-on-Thames, England. "The greenkeepers have been led to believe that spikes are wreaking havoc on their links, but our study shows this not to be totally true."

The debate over spikeless golfing shoes vs. the traditional spiked variety has now gone from one of aesthetics to one of growing turf. Dr. Chamberlain conducted a three-year study on the effects of the two types of spikes have on both fescue and bentgrass putting surfaces. His conclusions shed new light on the controversial topic.

From his study, Chamberlain found the spikeless cleat to have 62% more surface area, which formed the basis for his following conclusions:

- 1. Because of the larger surface area, damage to the coleoptile increases 37%.
- 2. Leaf sheaths are being

crushed instead of pierced, which is creating discoloration in the fescues.

3. The separation of the ligule from the leaf blade increased 14%, thereby increasing chances of fungal entrance by 74%.

"Many of my fellow researchers have focused much too much on the edaphic environment of the turf plant. While the layering created an 1/4" by metal spikes may have some validity we all know that cultural practices exist to remedy this. My concern is we are overlooking plant parts above the soil. I hope my research proves this."

The animated professor jokingly concluded, "The links supervisors shouldn't be so quick to praise the value of the spikeless. Forget about all the biased data. Just



think about a green with no spike marks. What is the golfer going to blame his missed putts on now? I'll tell you - they'll be back at the pub downing their pints and cursing the greenkeep."





Does Another Long Season Signal a Big Change?

By Monroe S. Miller, Golf Course Superintendent, Blackhawk Country Club

November isn't a favorite month for many people - it is stark and cold and lonely, they say. Not so, I say.

It is a month when finally we can think about leading a normal life. It is ushered in by Halloween. a colorful holiday of teepee shaped bundles of corn stalks, glowing orange pumpkins and kids trick or treating. November is a time of hearth fires in our homes, apple cider and pumpkin pies and new red potatoes, and a return to standard time. And it is the month when our ancestors started the traditions of feasting and public and prayer thanksgiving. Nowadays it is one of our favorite holidays.

What a year this has been for those of us who toil on a golf course. Early start (March), brutal mid-summer weather, no rain in September and October, and players on the course well into the final days of the year. The fall color was beautiful late, when we feasted on the oaks and the larch. There were no misty mornings this fall, and no killing frosts either, until late October. Birds were slow to go south, the wind blew most of the time in October, leaves were a problem we were still dealing with into November, and the players of Wisconsin are nigh well onto getting spoiled by these long, long golf seasons. The lack of rainfall delayed the decision to purge irrigation systems; pulling the trigger made many of us nervous as we looked back and forth between the calendar and the dry conditions.

It was a year of sadness. We lost two good friends and colleagues. The end of the century forces us to think about maintaining the excellence of our chapter without the presence of Gene Haas.

A host of new pests have made themselves known. The Asian longhorn beetle, the Japanese beetle, the zebra mussel, the gypsy moth, and gray leafspot all are potentially serious problems for golf courses. There are more attempts to pass intrusive bureaucratic rules for us to follow. Global warming and a changing climate are in the news. No wonder I am tired!

So, these days around Thanksgiving and Christmas are times to set aside the troubling unknowns of the future and focus on homes and families and some





vacation time. Do your best to enjoy them.

Some have accused me of obsession with the weather. Obsessed is a bit strong, I think. I would accept "interested." Why shouldn't all of us be interested (or even obsessed) with the weather? It has enormous impact on our lives.

So it is no wonder I was interested in what the head of the National Oceanic and Atmospheric Administration had to say about the upcoming winter weather.

The La Nina weather phenomenon is expected by NOAA to change the strength and pattern of the Pacific jet stream over North America and bring the Midwest more rain and snow than we normally get.

"We expect considerable month-to-month variation in temperature, rainfall and storminess in the Central, Northern and Eastern states, which means days of warmer-than-normal temperatures followed by bouts of bitter cold," the agency said in an October 26th press release. Here is their more 'detailed' forecast: High degree of uncertainty. Considerable variability from week to week with above normal temperatures in southern areas and closer to normal in the north. Above normal snowfall in northern Great Lakes. Near normal precipitation south and east of the Appalachians.

The Weather Service says it has improved the forecasting of La Nina and El Nino so that they can predict related events and their expected climatic impacts with 70 to 80 percent accuracy a year before they occur.



I could go for a lot of snow this winter.

The federal government's first study of global warming and its potential effects that takes into account increased humidity conclude that the heat blast they are predicting will bring on some serious dog days that will cause the heat index - a measure of discomfort that takes into account both heat and humidity - to soar. The next 50 to 60 years will see this kind of change.

Plugging humidity into their computer models of global warming, federal scientists determined that in the next half-century the average summer heat index is going to be near 100 degrees for much of the country. Fortunately, we are not in that part of the country.

What is now the occasional super hot-and-sticky day will probably become the average day in the south and east. Their weather will be very hot and sticky. But we will be experiencing more uncomfortable days here, too, but to a slightly lesser degree.

Although there is considerable argument about it, the convention-

al wisdom says that the average temperature will rise somewhere between three and eight degrees F. as carbon dioxide levels in the atmosphere double. When humidity is factored in, that translates to a seven to ten degree increase in the heat index.

Really, no one should be surprised. One of the first things you learn in an beginning meteorology course is that the hotter it gets, the more moisture the air retains. In other words, hotter temps mean higher humidity.

•

Finally, we have a turfgrass pathologist at the University of Wisconsin - Madison. He is Dr. Geunhwa Jung, and he accepted the position when it was offered to him on October 21st. Dr. Jung was one of the four finalists who were invited in for interviews. Those interviews, by the way, included members of the turfgrass industry, thanks to Profs. Maxwell, Stevenson and Andrews.

A native of South Korea, Geunhwa earned his undergrad degree in Horticulture at Chungnam National University in South Korea in 1988, a MS and PhD from the University of Nebraska - Lincoln. For the past several years he has been a postdoctoral research assistant in Dr. Jim Nienhaus' lab at the UW -Madison.

He is an enthusiastic person who has published a number of scientific articles. You'll have the chance to meet and visit with him at the 2000 Turfgrass EXPO in Middleton in early January. You'll like him.

Just about the time you think Americans are the only citizens of the world who like to sue one another for every frivolous incident under the sun, you read about a lawsuit brought by a golfer in Scotland

A Scottish woman is suing the country club she belongs to after a golf ball she hit bounced off a nearby rock and hit her, leaving her blind in one eye.

She told a court in Aberdeen that the stone was hidden in the rough along the fairway at Westhill Golf Club near Aberdeen. She claimed the course manager was to blame because the course was badly designed and maintained.

The hearing was continued. That sounds familiar, too!

So, here it is, ladies and gentlemen, the final issue of The Grass Roots of this century. What a staggering thought. My grandparents Miller were both born in the last century and Grandma Miller almost made it into what would have been her third century. To put it into perspective, remember that golf is just barely a century old in America!

A lot has happened in the last century. We are incapable of envisioning what the next one will bring to mankind. My new year (and new century) wish is that all of you get off to a great start. Happy holidays.

An Uncommon Man

By Monroe S. Miller, Golf Course Superintendent, Blackhawk Country Club

It was perfect. Gene Haas was presented the WGCSA's highest honor - the Distinguished Service Award at our last regular meeting of the century. It was a beautiful fall day in Wisconsin (our best season), he played golf with his extended family of golf course superintendents, and his lovely wife Diane was with him to share the evening. It couldn't have been scripted any better.

Who is (or ever has been) more qualified than Gene Haas to receive our highest honor? I cannot think of anyone. In his 23 years as executive director of the Wisconsin State Golf Association, Gene has conducted nearly 500 tournaments. Add in qualifiers he has been responsible for and it becomes clear that most of us have dealt with him on our course for an event at one time or another. In my case, I think that we have hosted almost all of the WSGA events in my time as course manager at Blackhawk, so I know of what I write.

Regardless of the event, Haas wanted a course set up so that the best competition was available to players. He arrived early, usually played the course, took charge and communicated what was to be done. I cannot imagine that any state has offered, year in and year out, a better run tournament schedule that

the WSGA.

Time spent with Gene has given me a better understanding of golf and all that it is and should be. His perspective is complete and encompassing and he was never bashful to share it. He has a lot of strengths that came to each event. One of those was his thorough knowledge and understanding of the rules; that knowledge made him one of the country's premier rules officials, an area lots of us can always improve upon. He was always a real stickler on rulings, a fact players were well aware of.

Actually, Gene was more than just knowledgeable. He is a very bright guy with a memory like a steel trap. No details escaped him and his analytical mind sorted situations out and resolved problems quickly and with common sense.

An incident at our course during the State Amateur in 1993 demonstrated to me that Haas' understanding of the tough spot superintendents sometimes find themselves in. During that tournament a player complained to a State Journal reporter at the end of the first day that the golf course crew had cut a poor cup on the second green and as a result, he had lost his chance to compete. He was rude in his comments.

The paper came early in the

morning so I was able to go inspect the cup and see what was wrong. As I expected, it was perfect. Tough (Gene made the selection!), but perfectly cut. I was furious. Before play, I asked Gene if there were any other complaints about it. There weren't. Next, I asked one of the competitors from our Club who this person was, and he pointed him out to me.

That afternoon, I spotted the player near the eighth green. Haas was there, too. So I asked Gene if he would object if I spoke to the player about the incident in the paper that had embarrassed all of us on our crew. All he said to me was, "he needs a lesson in better sportsmanship. Go ahead."

I did. I took the guy about thirty yards away and administered a lecture about his conduct, about the golden rule and what golf was supposed to be all about, and a dozen other things. When I was done, he apologized to me. He apologized to Gene. And that evening he came by the shop with beer and soda and apologies for the crew.

Haas deserves credit for giving that person a better idea of conduct during an amateur tournament. I wouldn't have said a word if Gene had wanted me to 'not rock the boat.' That wouldn't have been Gene Haas!



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JOTTINGS FROM THE GOLF COURSE JOURNAL



Gene Haas accepts a gift from Scott Schaller, president of the WGCSA. Diane Haas looked on, obviously very proud of her husband.

Scott Schaller received a hug from Gene's wonderful wife Diane. She has done chanpionship work for Wisconsin's golf course superintendents.





Gene Haas, recipient of the WGCSA Distinguished Service Award.

Another event few know about merits publicity here. It really says a lot about how Gene views the whole world of golf, one that includes golf courses and turfgrass, not just the game. I had a notion that O.J. Noer should be in the Wisconsin Golf Hall of Fame. Before I wrote the nomination letter, I spoke to Gene about it. He was careful in his response, asking if I knew there were no non-golfers in the Hall. I did know that, but thought I could make the case for O.J. Gene encouraged me to do that, adding that "if there is a non-player who belongs, it would be O.J. Noer."

I wrote the letter, Gene dealt with it, and O.J. was the only person elected into the Wisconsin Golf Hall of Fame that year. I am grateful to Gene for his efforts on our behalf and O.J.'s behalf. Likely, O.J. Noer will always be the only non-player in the Hall of Fame.

We have been fortunate to have enjoyed the artwork only Gene is capable of producing in The Grass Roots - from caricatures of our members and speakers at the Symposium to art for the cover. He personalized our journal, making it more meaningful for all of us. Gene has shared his incredible and unique talent not only with us but with all of the Wisconsin golf community. And our volunteer authors can look forward, after toiling at no pay for a number of years, to a trip to Augusta and the Masters. Arrangements have been handled by Mr. Haas and the gratitude those who have attended feel is great.

Every time you receive a piece of correspondence from our chapter, it should serve as a reminder of our reliance on Gene and Diane and the wonderful staff at the WSGA. Much of that work is routine and mundane but critical to our success as a chapter. For that, we owe a substantial debt of gratitude. And those involved with the Wisconsin Turfgrass Association will chime in with their thanks for all the WSGA office did during the WTA's formative years. Would the WTA's formative years. Would the WTA's been receptive to our overtures? Not likely. And as a bonus, we got the help of the WTA's all-time best recruiter - Diane Haas.

It is breathtaking to think of all this man, this great man, has done for the golf course superintendents in Wisconsin. His retirement makes me melancholy. But it also has caused me to pause and reflect on how lucky I have been to have crossed his path. His uniqueness as Wisconsin's principal person in golf has served us well. I am pleased we were able to honor him and Diane, in our own and special way. He deserves all of the honors and accolades that have recently come his way. There will be more.

In the end, whatever is good for golf will be good for golf course superintendents. In the last quarter century, who has been better for golf than Gene Haas?

No one. Haven't we been lucky to have been associated with him? \checkmark





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An Ironic Season

By Pat Norton, Golf Course Superintendent, Nettle Creek Country Club

The golf season just completed has been... as usual... full of successes, failures, tragedies and miracles. We have seen colleagues and parents pass on into another form of life... some of which is difficult to comprehend. We are all awakened to the fact of our basic good fortune in

befalls someone else. I can't help but look at it all... the death of loved ones or people that we all know... and contrast that with the basic joy of life that we should all be experiencing. Life is sometimes full of irony.

this life... especially when tragedy

The summer of 1999 was the summer when my own father died ... and it's ironic that I felt closer to him at the funeral mass than when I said goodbye at the hospital. The emotion of the music at the Mass got everybody started with the tears... and I must admit that I was leading that parade. Ironically, this for a father that I didn't really know... as well as did my older brother and sisters.

So then my mother asks me to read my good bye letter to Dad ... written to him two days before he died... I confidently said "No problem, Mom... that'll be my reading at the funeral." Which was all OK... up until the point in the Mass when the music got sort of overwhelming ... then my younger sister spoke... followed by myself.

If anybody out there tries to avoid public speaking... imagine yourself in a situation of having to get up in front of the congregation at you hometown church... after already bawling your eves out for about five minutes... and looking out over the audience and seeing your aunts, uncles, cousins, nieces, nephews, sisters, brother, mother, plus wife Susan and rapidly maturing trio of one's own children... all looking back at you with somber,

teary eyes.

To then speak to your dead father... with those same words read to him in his last days in the hospital... was a very tough public speaking bit!

Fortunately... everybody in our family, including my mother, can look back on it all with a sense of 'a well lived life' ... because my dad was 76 years old.

I cannot imagine the grief that families must experience with the sudden loss of a loved one... taken away in the prime of their life. One young family here... with four children about the same as ours... lost their father in the summer of '98 in a solo traffic accident... this guy was only 38 years old!

How ironic is it that some people live to a ripe old age while others die prematurely... how ironic is it to depart a Catholic Funeral Mass... into bright sunshine ... with family and relatives almost all still there... to take special notice of your children and your wife... happy and healthy.

How ironic to helplessly watch this other young family try to cope and adjust to their new life without their father... and reflect in one's own good fortune in having a great. whole family.

In thinking back over my life so far... it is really ironic that John

Norton was able to have such influence of Pat Norton... people tend to think of themselves as self-molded, I think...

Parents are certainly not perfect... but their imperfections can be used as life lessons for the next generation... which seems to be the intelligent thing to do.

My dad influenced me in many positive ways... as I'm sure is true for every man or woman reading this. Sometimes parents influence children negatively... which was also the case with my father.

I have tried to be the father to my children that I always felt my dad could not be for me... a little bit more approachable, a little bit more loving, and a little bit easier to talk to...

It's ironic that I couldn't express these things to my own father... but he did very well for all of us in many other ways... that's for sure!

The other great irony of 1999 is this darn golf course! I am so damn mad right now... that I really need to vent my frustrations someplace... how about right here in The Grass Roots?

Why do people almost automatically assume that superintendents are only grass growers?? Why do course owners... almost always look 'inside' for managerial talent to solve the woes of a public golf club?





Do they only consider superintendent types as a last resort... after all other options have failed? Do they really prefer to let the incompetent, fluffy, charming b.s. types represent the club in all kinds of important ways? It certainly seems so...

Last spring my uncle decided to buy up the ownership stock here at Nettle Creek... which was great for all those owning stock... myself included. There was only a bit of talk about me... the simple grass grower... retaining any ownership interest. It was mutually agreed that it would be better for both parties... the new owners and Sue/Pat for us to simply cash out... invest in something else... and simply continue with my position as course superintendent.

We expected to hire a PGA professional... who declined to become involved... which led to operating the season with a very nice, very charming, very inexperienced non-PGA pro... who was allowed to appoint himself 'Director of Golf'... We also hired a very nice, very charming, very inexperienced general manager... These two fellows, it should be mentioned, have a relationship that has steadily worsened as the season winds down.

Six months later... this public course operation has suffered through a serious decline in morale, enthusiasm, credibility, and member involvement... which has naturally fed upon itself to the point where a serious management shakeup is in order!

The huge irony of it all is that the golf course itself experienced a fantastic year! Our new ownership... who just happen to be my paternal aunt and uncle... gave me tons of freedom to operate the golf course as I saw fit! Micromanagement is a definite thing of the past for me here... but a problem for the inexperienced guys up on the hill. But having the course in great shape... with cool landscaping and other course improvements happening all season long... just wasn't enough to carry us to success in 1999!

There has to be strength throughout the management team of any business organization... and golf courses are no exception.

I have always wondered... if strong internal management were to be coupled with weak course management... would the same situation arise? I do believe so... except that it would be a long-term sort of thing... showing up after a period of years of poor course management!

By the way... our income fell off sharply this year also... making it somewhat illogical to expect any sort of a raise, bonus, or IRA contribution... leading to just a little bit of frustration and anger!

It's a little tough to watch this place decline so rapidly... knowing that the golfers all really appreciate our efforts on the course... and shar-



50