(Continued from page 19)

gram. Since PSU is in a different climate than UM, selection pressures during outdoor trials will likely yield different results than the ones encountered in Minnesota. Dr. Huff is evaluating over 1600 types of perennial *P. annua* biotypes for putting greens. Assessing cold and heat tolerance, management requirements, and disease and insect resistance, his goal is to develop super aggressive varieties (Huff, 1997).

The Wisconsin Golf Turf of the Future? Last year I was invited to visit a new golf course being built in God's country near Hayward, WI. Although the course will likely not be finished due to the loss of the financier, one of the intentions was to plant naturalized grasses in an effort to cut pesticide and fertilizer requirements. When I suggested *P. annua* be planted since it would come to dominate the course anyway, the consulting superintendent (from Virginia) scoffed at the idea and was convinced he could keep *P. annua* out through non-chemical means. Since I couldn't tell him where to get a sufficient supply of reliable seed anyway I decided not to push the issue.

Late in 1997 the first cultivar of *P. annua* was released. A type of *P. annua* var. *reptans*, it was at first marketed as *P. reptans*. Since only an international committee of taxonomists can approve new species names, the new advertisements refer to it correctly as *P. annua reptans*. The cultivar name is 'DW-184', formerly 'MN-184'. The DW stands for, of course, Don White, who developed the cultivar out of his breeding program at the University of Minnesota. 'DW-184' is a perennial, stoloniferous type grass and is targeted for greens. Although it has performed poorly in tests at PSU, it has grown quite well in Minnesota test plots. Marketed through Peterson Seed Co. (Sav-

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age, MN), it is supposed to be capable of being maintained at mowing heights of 0.125 inches. The greatest drawbacks at this time are its high price (approximately \$40 per pound) and a lack of knowledge of management requirements. We can expect the seed price to come down over time as supply and demand equilibrate and seed production is optimized. Management schemes will be developed as more people use the grass and as testing is performed at more sites. The seed comes coated with a variety of materials, including fertilizer and a fungicide to prevent damping-off; the blue colorant indicates the seed has been "treated". This is likely only the first of more varieties to come. At one time, and perhaps still now, plans had been laid to release at least two more cultivars from Dr. White's program. We can likely expect Dr. Huff's program to produce cultivars adapted to a different set of environmental conditions, and maybe even to our conditions as he and Dr. Mike Casler of UW-Agronomy discuss plans to test promising lines in Wisconsin.

If you want to get an early peek at the potential of *P. annua* var. *reptans* for golf course putting greens, stop by the O.J. Noer Facility next spring, or better yet, at field day in August. 'DW-184', supplied by Peterson Seed Co., was planted on a USGA-specified sand root zone this autumn. The seed was planted in a test designed to determine management requirements for the A and G series bent-grasses in Wisconsin, particularly topdressing and aerifying. The research project is generously sponsored by the Wisconsin Golf Course Superintendents Association, so it truly is your research, and should provide beneficial recommendations to superintendents throughout the state.

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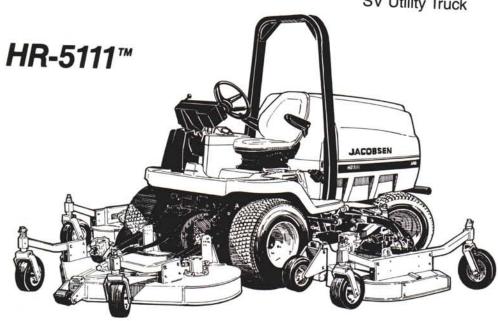
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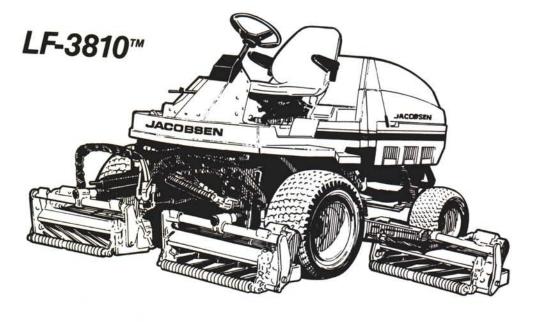
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TGIW

By Monroe S. Miller

The golf season of 1998 will be remembered by me and a lot of other Wisconsin golf course superintendents as the "endless" season. It started early - we were working outside on the course in February - and ended late this fall. Our first hard freeze didnít occur until October 22nd.

Thank God it's winter; I'm ready for Thanksgiving and Christmas and lots of snow. The worry and work went on too long to be healthy, at least if one was maintaining a "midseason" level of intensity for all those months. And sometimes player demands in March and September almost required it. I am pooped.

September in our town was gorgeous. It was summer-like, dry and warm. We averaged temperatures five degrees above normal and rainfall levels were below normal. We had our only 90 degree day of the summer on September 13th. Playing conditions were super.

The summer-like weather made it difficult for wildlife biologists to explain why Canada geese arrived so early in southeast Wisconsin. They flew into the Horicon Marsh on September 8th, the day after Labor Day. That was one of the earliest dates ever, equaling the early arrival in 1988. September 13th is when the

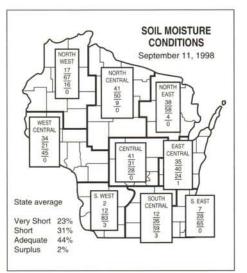
geese usually begin to arrive, with large numbers building up around September 20.

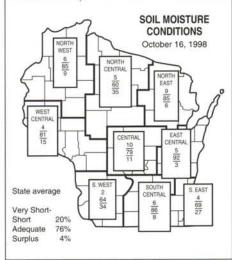
October turned out to be a typical one. We had some drenching rains, the fall color was superb, and regular frosty mornings stayed at bay until November.

Golfers around here should long remember this season. It was a beauty. Details from the Wisconsin Agricultural Statistics Service are here to help you remember. Wind gusts exceeding 100 mph helped make the summer of 1998 a record season in Wisconsin for high-speed winds. We had as much tree damage as we have ever had on our golf course as a result. Others have told me the same.

While the summer-like weather lasted uncommonly long, storms produced 100 mph readings eight times more than normal, according to the National Weather Service. Winds of 100 mph or greater were measured in 13 counties.

The highest ever recorded is 128 (Continued on page 25)





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(Continued from page 23)

mph by an amateur observer in Dodge County on May 31st of this year. The previous record was 115 mph in Rhinelander. Hurricane-force winds, described as those exceeding 73 mph, made the April-to-September season the windiest since authorities began keeping records in 1900.

There were 24 tornadoes this year, compared with a 30-year average of 21. Downbursts that create straight-line winds broke 100 mph four times: May 31 in southern Wisconsin; June 27 in Trempealeau, Jackson and Monroe counties; July 20 in Lake Geneva; and July 21 in Elkhorn. In the last 30 years, thunderstorms created 100 mph bursts an average of once every 2.3 years.

Jim Latham and Dr. Mike Kenna were in Wisconsin in September to review work Steve Millett is doing as part of his USGA Green Section research grant, to tour UW-Madison facilities, and to sort out some administrative details concerning the grant with WARF. The group had dinner in the midst of the State Street chaos, near campus, in downtown Madison.

For everybody, it was great to see Jim Latham, the ageless wonder in our business. For others, it was a first opportunity to meet Dr. Kenna.

The UW-Madison proved again in the past year why it is a world class institution. The Science Coalition in Washington, D.C. issued its latest report on "Great Advances" in science during the final week of September, and four of those advances came from the UW. The report is released every year, and the Coalition is an alliance of 400 groups and individuals dedicated to sustaining federal support for basic research in our universities.

Close to the top of the list was the completion of a 10-year effort for sequencing the genome of the E. coli bacterium by Dr. Frederich Blattner, UW-Madison genetics professor. UW-Madison engineer Marc Anderson patented a technology that helps plants thrive in outer space, a success that could ultimately help citizens as practical applications are developed.

(Continued on page 27)



L-R: Doug Maxwell, Jim Latham, Steve Millett, John Stier, Mike Kenna, Jeff Gregos and Wayne Kussow. To Doug Maxwell's left, out of the picture is Mike Casler.

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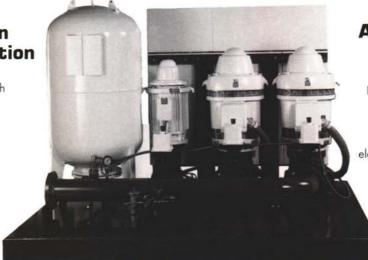
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(Continued from page 25)

Chemist Laura Kiessling created a new class of synthetic molecules that block cellular processes that cause pain and swelling. Her work could offer a new strategy for relief of inflammation and pain that comes from some illnesses.

UW engineer David Larbalestier figured out how to solve a problem that prevents superconductivity wires from carrying power to their potential. The tiny fractures that block electrical flow can be eliminated through his manufacturing process. The result could be wires that carry 10X the energy copper carries, a real big deal.

Like many, I find comfort that our profession has such a close alliance with the institution. Its potential for problem-solving is awesome.

The home run battle between Mark McGwire and Sammy Sosa certainly made September a lot of fun, even for non-baseball and even nonsports fans. Both guys conducted themselves beautifully, like real sportsmen.

According to Wisconsin's two-time US Open champ Andy North, Mark

McGwire can hit a golf ball a long way, too. North played golf with the Homer King a year ago in California in a Pro-Am tournament at Pebble Beach. He said McGwire was "a great guy. What you see is what you get. He hits a golf ball a long way, thirty yards past us."

If it was heartening watching two genuine American heroes in late summer and early fall, it was disgusting watching Slick Willie Clinton disgrace the position he doesn't deserve to hold. He has demeaned the presidency and stained the stature of the office.

The picture of Clinton on TV wagging his finger at the world while saying "I never had sexual relations with that woman" illustrated his great capacity to lie. He sounded like some self-righteous tent preacher talking down to his congregation. In fact, Clinton is the weak-willed, spineless sinner. He apparently believes that fidelity is old fashioned and that adultery is the norm.

Clinton has shown he has the morals of a philanderer and the greed of a drug dealer. But what can

you expect from a draft dodger? If he had a shred of character, he'd leave office.

Don't hold your breath. His arrogance and insincerity are breathtaking.

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Andy Kronwall gave the most informative lecture at this spring's WGCSA business meeting, alerting everyone to the potential disaster brought on by zebra mussels. Officials from Minnesota have noticed big numbers of this mollusk in the Duluth-Superior harbors in Lake Superior this fall. It has caused no small amount of concern.

That report, and others, have raised the danger flag for courses that use surface water for irrigation. There is no good news on that topic.

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So, Happy Thanksgiving and Merry Christmas. We may miss many other holidays during the year, but these are two we can celebrate to the max. And if you are a deer hunter, may you bag the biggest buck in the woods!

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A Temporary Solution

By Sandy McDivot, Head Greenkeeper Sludgecombe Pay and Play

Editor's Note: The feature should be entitled "From Across The Atlantic" this issue since the article reproduced here originally appeared in the January 1998 issue of GREENKEEPER INTERNATIONAL, official publication of the British and International Greenkeepers Association. It appears here with permission of Editor Scott MacCallum.

The author, writing under the pen name Sandy McDivot, is indeed a golf course superintendent in Britain and knows of what he writes. Enjoy this piece from across the pond.

When any self respecting golf club member hears these two words its rather like Pavlov's dog, but instead of producing saliva they instead generate copious quantities of bile and venom ready to be used in describing the feelings they have for the resident Head Greenkeeper and the use of the above mentioned "temps" as they are now universally known. Now perhaps I am tarring them all with the same brush but I have to confess that for many years before I was in the noble profession I too was one of these members. I therefore feel I can write such a statement with some degree of inside knowledge of the unenlightened club members. Yes, shamed though I am of my torrid and despicable past, I was one of the uneducated masses generally referred to by greenkeepers as people without fathers. I thought nothing of giving the Greens Chairman of my local club the benefit of my wisdom on the above subject, after all I was seen as a better than average golfer and so was on my way to possessing total knowledge about all things concerning greenkeeping.

In my defense however, I have to say that the temps in use at this particular course were of the uniform circular type, cut out in early November and measuring about 30 square metres. Add to that a one in two slope, a standard size and overgrown hole and a surface so littered with

frozen worm casts that putting on them became more akin to a pin ball than golf and one could see my concern on their use.

As you can imagine my views on the subject have now taken on a different perspective and I feel I can write on the matter from both sides of the fence as it were. At Sludgecombe Pay and Play I am in the not uncommon position of having to cater for something in the region of 55,000 rounds a year. It is therefore desirable, during periods of inclement weather and zero growth that the greens are rested by way of the use of temporaries. As we are all aware, the vocation of Head Greenkeeper requires (above such other trivia as a

knowledge of greenkeeping) the art of diplomacy and a gift for politics. So when the temporaries are required we, like all greenkeepers make an effort to: a) limit their use, and b) ensure that they are in a reasonable condition and as much as possible approximating to that of the main greens. So we mow them at the same height of cut and at the same frequency, spray with worm killer, aerate, topdress, feed, etc.

I thought that I was getting quite good at this until recently I and my assistant played a very busy and successful course within the vicinity of Sludgecombe and noted the astonishing condition of its greens. Apart from learning that this course

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was even busier than my own in that it catered for some 60,000 rounds a year, it was like mine, about four or five-years-old with greens constructed of a sandy growing medium. But where as mine had already started on the slippery slope to Poa annua dominance theirs were almost totally free of the wretched stuff. Desperate to find the secret that they were undoubtedly in possession of, I accosted a young greenkeeper who was innocently working nearby and subjected him to prolonged interrogation in an effort to learn the truth. Did they use some sort of chemical control? Were there armies of backup staff hand weeding the greens? Or were they employing some other unknown more sinister means?

Well, to my disbelief, it was none of the above. It appeared it was all down to good greenkeeping. But as we continued on our way around the manicured turf we noticed their temporary green preparation was well underway, but these were no ordinary temps. There were huge great things equal in size to the main greens and generally placed in the regularly

mown approach areas. They were all topdressed with sand and a large hole was already in place.

Maybe that was the secret I had been searching for. In vulnerable times remove all play from the main greens and bung them on the temps. With such large and well prepared alternatives the golfers are kept happy while the owners are kept equally happy as play is allowed to continue. The main greens remain the best in the area free of the pernicious weed we have all learned to despise, because with such a dense turf it has no room in which to invade. As I indicated earlier, it all comes down to politics and keeping everyone happy.

Still on the subject of politics, how else can we give our greens the breather they so desperately need while at the same time avoiding the risk of a member revolution. After all, there is nothing worse than revolting members. Well, one thing I have noticed over the years is how there is a breed of golfer that delights in playing every day, or as near as possible to it. They usually come in the guise of middle aged ladies or perhaps

more commonly senior men. Their desperation in playing the game is totally lost on me as I have not taken a degree in psychiatry, but I have noticed they are not it would appear. in the slightest bit interested in the quality of the putting surface they are given. The only thing they require is that the course remains open. Give them the choice of eleven months of excellent greens but with the course closed for one month, or 12 months of diabolical greens and they will choose the latter every time. So I utilize the years of diplomatic experience I have developed and mid-week when the above mentioned desperado's like to frequent the course, I shove them all on temps or as many as I can get away with. Any hint of complaint from them and I mention the other alternative, i.e. the course closed situation. This is normally followed by hushed tones and a fevered rush to the first tee. This leaves the greens in a reasonably rested condition for when the more discerning and politically more powerful arrive at the weekend.

Maybe course architects and course owners alike should think

