2001 Ends As Another Warm Year

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

lmost 50 consecutive days of **1** above-normal temperatures in October, November and early December kept the Wisconsin landscape snow free and her lakes open and unfrozen nearly until Christmas. Snowmobiles weren't running, skiers were not skiing and skaters weren't ice skating unless it was indoors. But Wisconsin golfers were still playing up until Christmas (and after). I heard some talking of the possibility of playing golf in all of the twelve months. "A bit premature," I suggested to them. I am convinced the unseasonably warm weather affected attendance at our Wisconsin Golf Turf Symposium.

Variability in the weather has been almost startling in recent times. November 1998 was the 10th warmest; in 1999 it was the fourth warmest November; and this past November of 2001 was the warmest on record. Yet consider that we were snowed under in the autumn and early winter of 2000, recording an impressive 40" of snow by New Year's Day, 2001. December of 2000 was our snowiest December on record and the fourth coldest recorded. Big

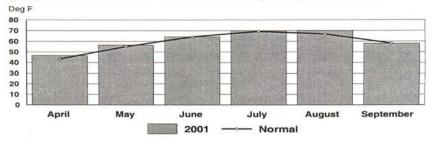
SOIL MOISTURE CONDITIONS AS OF November 16, 2001 EAST WEST CENTRAL EAST State average Very Short Short 14% Adequate 78%

swings to the extremes, I'd say.

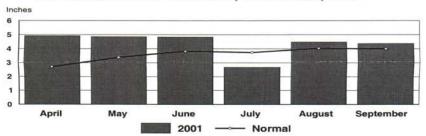
The lack of snow and the warm weather to this point are fairly widespread across the state. Snow removal equipment sales lagged, exacerbating an already weak Wisconsin economy. And the mild weather and rain caused concern about snow mold materials on the ground and required some courses to retreat in anticipation of snow in January, February and March. Who knows about that yet?

What a year the one just completed was. From the heavy snow of late fall/early winter to an April that brought too much rain and almost no sun, it seemed golf 2001 would never get going. We didn't dry out much in May and June. It should have been no surprise that July and August were brutal - hot and humid but little or no rain - and golf courses in the state suffered significantly as a result. But the -ber months sort of made up for the misery and gave us

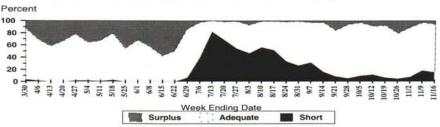
AVERAGE MONTHLY TEMPERATURE, WISCONSIN, 2001



AVERGE MONTHLY RAINFALL, WISCONSIN, 2001



SOIL MOISTURE RATINGS, WISCONSIN, 2001



gering fall.

Data and graphics from the great Wisconsin Agricultural Statistics Service tell the story best and are recorded here for posterity.

I don't see as much of the nighttime sky as I did back when we had a manual irrigation system, but there were many reasons of late to catch some celestial majesty.

This fall gave us the first full Halloween moon since 1955 - 46 years. And it won't occur again until 2020. That full moon is known as the Hunter's Moon, the first full moon after the Harvest Moon.

Then, in the first half of November, we were treated to comets running across the night sky and an absolutely spectacular display of northern lights (the aurora borealis). Astronomers say the show was one of the best ever this far south.

Finally, on New Year's Eve, if you looked above the full moon early in the evening when it was in the eastern sky you could see the planet Jupiter. It was also a beautiful sight.

The economy is suffering and affecting nearly every American one way or another. In Wisconsin we are facing a huge deficit that will require significant spending reductions (not more taxes as some misguided politicians are suggesting).

The downturn hit home when we read of Briggs and Stratton cutting even more staff, both union and salaried positions.

There was some good news, however, when Toro announced it was moving some manufacturing work to Tomah next year as it closes its plant in Evansville, IN. If I am not mistaken, they make their Multi-Pro sprayers at Evansville.

A good friend of mine (and former green committee chair) practices law in Madison and sent me an interesting clarification from the IRS on

the question of depreciation of golf course land preparation costs. It was two pages long and written in a language that clearly requires special training to understand. But the bottom line was (according to Len) USGA spec greens have a tax advantage over push-up greens because some of the costs of construction (or reconstruction) are depreciable. Push-up greens are considered land preparation and not depreciable.

Now you know!

The successful American military effort in Afghanistan has led to a number of stories about land mines and how civilians and GI's are being injured by them that makes the following story more pertinent to people like us.

Somsak Thepsutin, a cabinet minister in charge of tourism in Thailand, said his country is working on building a 27-hole golf course linking Thailand, Laos and Cambodia with nine holds in each of the countries. The proposed site is 400 miles northeast of Bangkok in an area littered with land mines. Said Thepsutin: "Yes, the area is boobytrapped, but it is a piece of cake for three countries to solve."

Land mines would most definitely be a new maintenance problem for most of the golf course superintendents I know!

The subject of the recently completed Symposium, new and emerging pests, brought to the forefront the battles we have ahead of us with some disease and some insects. The gypsy moth is especially troubling.

The state program is managed by Steve Millett and for years the lab was next door to our shop. Couple those details with the caterpillar found on our golf course last summer and you will know of my particular interest and fear.

But, somehow, there always seems to be hope. Here, as so often happens, the hope comes from our

land grant college, the University of Wisconsin - Madison, UW Madison scientists in CALS have found an antibiotic that may help kill gypsy moths.

In a series of experiments, a team of scientists from the Departments of Entomology and Plant Pathology have found that the antibiotic zwittermicin A enhances the lethality of Bacillus thuringiensis (Bt), a bacteria that is routinely sprayed in the Wisconsin gypsy moth control program.

The discovery was made by grad student Nichole Broderick, who is studying the microbial ecology of the gypsy moth gut. The research, it is hoped, will provide insights that will permit scientists to devise even more effective methods to kill insect pests.

The faculty involved are Dr. Ken Raffa of Entomology and Plant Pathology Professor Jo Handelsman. Dr. Handelsman discovered the antibiotic zwittermicin.

In our shop we have shifted gears, reviewed lessons learned from last year, and are moving headlong toward the new golf season. EXPO is over and the GCSAA conference and show is next on the agenda.

See you there!

