

How 'bout This Weather?

It's no longer just a rhetorical question. A lot of superintendents are serious when they say the weather isn't like it used to be.

By **TERRY OSTMEYER**

Golf Course Management Magazine

Maintenance practices must bend to unyielding Mother Nature.

Golf course superintendents know you can't fool Mother Nature.

If only the feeling were mutual. A growing number of course managers believe Mother Nature has been fooling around quite a bit during the last decade or two.

Ask any number of veteran superintendents one of history's most-asked questions, "So, how's the weather?" and chances are you'll receive a cursory update on the current state of things. But there's also a good chance the response will be embellished by, "It's sure not like it used to be," which is one of those great conversation-starters the original question historically, and almost rhetorically, always begs.

Indeed, longtime superintendents say they've been swinging at and missing climatological curveballs for many years -- certainly long before theories like "global warming" or high-profile phenomena such as El Niño and La Niña blew in and out of town.

Climatologists and meteorologists tell us that the weather in the United States is generally dictated by climate patterns that can endure for many years at a time, until a new pattern evolves and the overall scheme of the weather changes, say, from warm to less warm, from dry to wet, or vice versa, and so on.

Cycles of Influence

These changing weather patterns and their durations are not lost on golf course management professionals. The ramifications regarding their product -- the golf course -- as well as their job security are significant.

Ken Mangum, CGCS at Atlanta Athletic Club, says the facility's urban surroundings have a major effect on the climate at the course, which will host the 2001 PGA Championship.

"I'm a firm believer in the weather being a cyclic thing," says Joe Baran, superintendent at Bath (N.Y.) Country Club for the last 37 years. "Over a period a time we'll get a cycle of dry times and then a cycle of wet times, with not much else in between. The thing is, I think, man isn't around long enough to really see the full cycles in weather patterns. So, when we say it isn't like it used to be, it probably isn't."

The general feeling among those in agronomy is that the United States is in the midst of a perplexing pattern, to be

sure -- one in which much of the country's weather has steadily become milder in regard to temperature and agonizingly erratic in terms of precipitation. Weather experts cautiously agree, while acknowledging that the only sure thing is that the changes they bring are quite unpredictable.

Golf course management and weather science also share one given: While an ongoing weather pattern can affect an entire nation -- a continent even -- in a general way, its local impact varies according to many regional specifics, not the least of which is the human species itself.

Like weather experts, superintendents have many opinions on the weather of the last 10, 15, even 20 years, and they are of one mind on the sum of its parts -- for whatever reason, change has clearly occurred.

Whatever happened to . . .

Gene Kjose, CGCS, has spent most of his life around the far reaches of southeast South Dakota, including the last 15 years as superintendent at Elk Point (S.D.) Country Club, just up the Missouri River from Sioux City, Iowa. Keeping one eye on the sky and the other on his weather-monitoring equipment and record keeping, Kjose readily agrees that things aren't like they used to be.

"I can definitely say our weather patterns have changed in the 15 years I've been here," says the 12-year GCSAA member, noting particularly milder winters with less snowfall and ill-timed, isolated heavy rainfalls. "For instance, I can't even remember the last time we had a normal summer. Also, we have a lot of 'snowbirds' -- retired people -- in this area, and a lot of them go south in the winter. In the last five or six years, we've had milder winters than in some of the places where they go."

Kjose says coping with moderating temperatures hasn't been as frustrating as trying to figure out the emerging precipitation patterns in the central high plains.

"It used to be that 10 to 15 years ago we averaged about 35 inches of moisture annually," he says. "Like in April, our average rainfall was around 2.8 inches and is still about that. But nowadays when we get the 2.8 inches, we get it all in one dump."

Kjose adds that, as last summer's hot, dry siege took over the region, Elk Point CC enjoyed 12 inches of rainfall in early July. Trouble was, the rain poured down in two toad-strangling storms. Then nothing else fell from the sky for the next several months.

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Elk Point recently found itself in the crosshairs of a regional spring drought alert from the National Weather Service (NWS), which predicted dry conditions would last at least well into June.

The rare advance warning from the NWS was also discouraging news down in Odessa in west Texas. Ted Martinez, a longtime superintendent in the harsh high plains of Texas and New Mexico, has been at Odessa Country Club for the past 13 years. He is used to girding for drought in a region historically beset by a parched climate. Rainfall in a normal year there averages about a foot. It's been half that during the past two years.

But there are other climatological changes occurring in the area that concern Martinez as much, or more so, than impending drought. His golf course is getting little if any fall and winter respite.

"It's pretty easy to see the weather has steadily been changing here -- all you've got to do is look at the mesquite trees," he says. "They're budding out earlier every year. The native people here always say when the mesquites bud then winter's over. This year they came out by early March. In the first few days of April we were aerifying fairways and the bermudagrass was breaking out. It's all happening too early."

Sudden Extremes

CGCS Ken Mangum, a 25-year GCSAA member and currently a member of the association's board of directors, has spent most of his career in and around the Atlanta area. Director of golf courses and grounds at the Atlanta Athletic Club for a dozen years now, Mangum is keen on charting weather patterns. He says the more he has learned about them in the last decade, the less he really knows.

The University of Georgia Agricultural Experimental Station has been monitoring a weather station located on the Atlanta Athletic Club layout since the early 1990s. Mangum, convinced that the weather in the Southeast has been undergoing changes for years, also dabbles with 30-year averages in both temperature and precipitation. All the figures resemble a maniacal roller coaster route, he says.

"What I've learned is that these patterns have become less predictable . . . nothing is normal anymore," he explains. "What we've had is more of a combination of extremes. It seems like our summers take longer to get here and then last longer into the fall, but the real concern is that when it does happen, it's an abrupt change from spring-like conditions to very hot and dry summer conditions."

As opposed to golf course managers like Kjose and Martinez who work in more rural settings, Mangum is among a larger number of superintendents who believe the hand of man has had no small influence on current ongoing weather patterns.

"Like all growing urban or metropolitan areas, we have considerable evaporation from the irrigation of things like parks and golf courses and heat rising from all the concrete,

which has increased the humidity an awful lot," he says. "Fifteen to 20 miles away, it's completely different. I think that's been a very major change in the last decade or more."

When More Means Less

The same perception is shared by veteran superintendents in golf hotbeds on the opposite end of the country.

CGCS Carl Snyder of Scottsdale, Ariz., has been retired nearly 10 years after more than 35 years as a manager in the desert climes around Phoenix. In the span of perhaps the last 20 years, he believes the Southwest has experienced warmer temperatures year-round, combined with the area's inherent dryness. Otherwise, however, he has seen more short-term changes because weather patterns vary so much within the very short distances from great elevation to the desert valley floors. And the short-term changes may be caused more by urban growth than nature's fickle climate.

"It's just plain hot a lot of the time, like it's always been. I don't know that the weather itself has changed all that much here overall," says Snyder, a 43-year GCSAA member. "But there are changes that have affected the weather. When we came here in the early 1950s, I think there were five golf courses in the Phoenix metropolitan area . . . now there are something like 130 or more. We certainly have

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more humidity because of so much growth and irrigation from all the golf course development."

Lowell and Owen Stone, two longtime fixtures on the golf course management scene in the burgeoning San Joaquin Valley in central California, couldn't agree more with Mangum and Snyder.

"I don't think we have those long hot days like we used to in the San Joaquin. But the big change is that the nighttime temperatures are warmer," says Lowell, superintendent at Madera Municipal Golf Course and a veteran of 35 years of golf course management in the valley.

"What we do have is a lot more humidity, which is harder to deal with than the dry heat we used to have," chimes in Owen, a 43-year superintendent who came out of retirement recently to lend his expertise to some major renovations at Fort Washington Golf & Country Club in Fresno.

"We've got more humidity because we have more people, more development, more agriculture interests and more golf courses now in this area," the 19-year GCSAA member says. Lowell adds that in Madera alone, a half-dozen new courses have sprouted in the seven years he's been there.

Resiliency Required

No doubt the idea that the nation's weather has undergone significant change -- subtle or otherwise -- runs on a full tank of personal conjecture. For instance, Peter Levy, who runs Weather Metrics, a Kansas City firm that makes site-specific weather-monitoring equipment for golf courses, is wary of putting too much into what he calls weather trends.

It's predicting the weather that seems to be more difficult, points out Levy, who, like a lot of people who make a living doing that, believes that the advances in forecasting only increase the frustration of trying to upstage Mother Nature.

"I think, yes, weather conditions have changed," Levy says, "but dramatically different from 20 years ago? It's hard to say. I'm not so sure. I think we go from trend to trend, and I really don't think any of them are going to be real long-term.

"The weather will always have a huge effect on golf course management, but there are a lot of other factors, too -- new technology in equipment and grasses, more and more golfer and owner demands -- that dictate changes in maintenance. A superintendent has to develop the practices and tools to deal with all kinds of trends, weather and otherwise."

Peter Leuzinger, CGCS at The Ivanhoe Club in Mundelein, Ill., and a 25-year GCSAA member who has spent nearly three decades on golf courses in northern Illinois, suggests that his colleagues concentrate on utilizing on-course weather stations to gain knowledge of short-term weather patterns, rather than worrying about so-called changes over a span of decades.

"Every generation thinks things change when it comes to the weather. I wish I could live to be 200 years old so I could see more generations of weather," Leuzinger says, adding that in his experience the weather in the 1970s was much like it is now -- a little of everything -- and that if the records being broken in recent years are 80 to 100 years old, then what is occurring is not really so new.

"I think too much of this concern for the weather is just complaining. We put too much pressure on ourselves -- like green speeds, which have been discussed and debated for years," he notes. "Then they come along with new turf varieties and better mowers and we learn to deal with it. Most superintendents have strong characters and have learned to adapt for all kinds of reasons, not just the weather."

Baran, a 35-year GCSAA member, agrees that superintendents must adapt. If it's perceived weather patterns, bend with them, learn them and do the job accordingly, he says.

"It was dry once before and it was wet once before; it was hot once before and it was cold once before," he adds. "Like they say, 'What goes around comes around.' Of course, it would be nice to know when."

Responding to Change

The contention of the duration and actual effects of
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weather patterns aside, there does seem to be enough change in climatic conditions to, in turn, tweak and twist golf course maintenance practices to address those changes.

For Kjose, the trend of sudden, prolific rainfalls in the Midwest is enough of a headache. Drainage problems intensify, water damage forces reseeding at inhospitable times of the year, and disease runs rampant as humidity suddenly merges with summer-like heat.

"How do you maintain your golf course for a 6- to 8-inch cloudburst? You really can't," says the 12-year GCSAA member.

But the basically milder weather in the region is more of an ongoing challenge, he adds. In the last eight to 10 years, Kjose says play has begun earlier in the spring and lasted longer into the fall and winter months, forcing near year-long maintenance work. Irrigation systems must be recharged earlier and winter watering is often needed. Work crews also start earlier in the year now and work longer into the year's twilight months.

"It's made for some serious adjustments to our maintenance budget," he says.

Kjose adds that whatever is going on with the weather has even had an effect on industry vendors and distributors.

"The turf-care product companies, for example, used to set windows when their products should be applied," he says. "Most of them don't do that any more. They say just to use your experience, which means you better have some historical record keeping and the like."

R. Scott Woodhead, CGCS and this year's GCSAA president, noted a year ago in a GCM interview the growing frustration of caring for his turf at Valley View Golf Club in Bozeman, Mont.

"The difficulty is in finding the proper product on today's market," he said then. "The products and routines that have done me well for 20-some years are now starting to let me down because of the changes in our atmospheric conditions."

Down in Arizona, Snyder observes that many superintendents are fighting high salt content in their turfgrass

because of so much irrigation being applied in the wake of dry spells that endure for many months.

In the San Joaquin Valley — as in much of California — the long-standing battles against *Poa annua* have intensified as humidity creeps into the weather picture and enhances the growing powers of the dreaded cultivar, prompting in some cases, seven-day patterns of fungicide applications, according to Lowell Stone.

"A lot of superintendents on the older courses are on real heavy fungicide spraying programs for their greens. I don't remember that being done before," say Stone, a GCSAA member for three decades.

Job Pressures

Mangum believes the inconsistencies of ongoing weather patterns lead to myriad problems in golf course management because superintendents tend to work off of temperature and precipitation averages, and those numbers can't be relied on as much as in the past.

"We've had trouble with fall overseeding some years because the bermuda has outgrown the overseeded ryegrass," he says. "It's become very difficult when you have to base your practices on these averages. It just makes it hard to plan. The weather can make you look good if you time things right, and make you look bad if you don't."

Martinez also has experienced problems with water quality and timing of turf-care applications. With spring-like conditions arriving earlier and earlier, he has had to aerify and fertilize earlier, which impacts those regimes later in the season. As the west Texas region becomes more arid, the Odessa CC irrigation program must be monitored closely if it's to be needed during the late fall and winter and again in the early spring because of potential supply problems — especially when one is staring a national drought alert square in the face.

"There are a lot of situations in maintenance that have changed with the weather," says Martinez, also a member of GCSAA for three decades. "I used to think I was pretty good at predicting what was going to happen and do the job accordingly. But now I can't predict tomorrow. I can't even predict today."

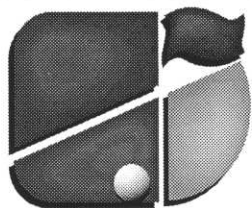
Eye Contact

Kjose would tell Martinez not to abandon his experience-based gut feelings, for perhaps the old way is still the best way.

"Maybe what we're forgetting is Mother Nature," he says. "Most of us have all the gadgets, the temperature gauges, the humidity readings, whatever. But maybe we forget to look at the sky. Maybe all we have to do is look up if we really want to know what it's going to do."

But don't be surprised if you get fooled.

(Editor's Note: This article was reprinted with permission from Golf Course Management Magazine. Terry Ostmeier is a contributing editor for GCM.)



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