

Poa – July 13, 1995

by Cathy Miles Ralston

No doubt about it: the summer of '95 will be remembered as a series of scorching, humid days and warm, muggy nights.

Extreme conditions call for extreme coping measures. Like superintendents area-wide, Dan Dinelli of Glenview's North Shore Country Club has been struggling not only to keep the golf course green, but also in the case of certain greens to keep the turf alive!

Lush and venerable North Shore C.C. was built in 1920s, which has given the renegade weed poa annua (annual bluegrass) ample opportunity to infiltrate the course's putting surfaces. As those in the golf industry know all too well, Poa annua is opportunistic; whenever a ball mark, divot or spike mark injures the existing turf – creeping bentgrass, in the case of North Shore's greens – poa swoops in. Dan estimates that many of North Shore's greens are 50 percent poa annua. A few of the oldest greens, which haven't been regrassed in more than 70 years, may be as much as 90 percent infested with poa.

Herein lies the problem, the quandary that afflicts public courses and private clubs, older, established venues and new facilities alike. Poa annua is a viable playing surface; a plant pathologist, writing in *Weeds Trees & Turf*, observed that "under close cut, irrigated turfgrass cultural conditions, it is capable of forming a dense, uniform quality of turf." Indeed, most golfers can't distinguish between poa annua and creeping bent – both cool season turfgrasses – unless variances (in coloration, texture, etc.) are pointed out to them. So what, golfers may ask, is the harm in letting poa annua prevail?

The answer: poa annua is extremely vulnerable to heat, much more so than creeping bent. When soil temperatures reach 104 degrees, annual bluegrass dies. The dose-time principle applies here; as Dan explains, it's not only the magnitude of the heat, but "how hot for how long". Humidity exacerbates the heat factor, inhibiting transpiration, the mechanism by which plants cool themselves. Additional stressors inflicted upon golf course turfgrasses, such as foot traffic, low cutting heights and impaired air movement over grassy surfaces, further exploit Poa annua's inherent vulnerability.

July 13, the pinnacle of the summer's most brutal heat wave, compelled Chicagoland meteorologists to rewrite the record books. Air temperatures soared as high as 106 degrees; the heat index hovered in the 120s. Statistics generated by the weather station at North Shore – one of only two golf courses in the area with this technology – are equally impressive and, given Poa annua's prevalence and susceptibility to heat, downright scary. The following is an excerpt from the data



FORE great service... PUTT



**Your
Landscape Needs
In Our Hands!**

- Bulk Stone, Mulch & Topsoil
- Central Sod
- Diamond Retaining Walls
- Interlock Concrete Curb
- Paveloc Pavers
- Drain Tile & Accessories

ASPEN VALLEY

LANDSCAPE SUPPLY INC

Chuck Chism: 37W305 Rt. 72 • West Dundee, IL • 708/426-0072
Shara Weaver: 13931 Bell Rd. • Lockport, IL • 708/301-0703

TRUE-SURFACE®

VIBRATORY GREENS ROLLING SYSTEM



"We originally bought the True-Surface vibratory greens roller to help manage green speed. However, we have found other uses, my favorite being after topdressing. The vibration helps to settle the sand deep in the turf canopy. Golfers enjoy the true, firm, cleaner putting surface. My mechanic is happy, spending less time sharpening the mowers. It's a win-win situation."

*Dan Dinelli, Superintendent Grounds,
North Shore Country Club, Glenview, IL*

BOJO TURF SUPPLY, INC.

815 469-6841

Distributor for Turflite, Inc.

(Poa — July 13, 1995 continued)

gathered July 13. Note that the weather station calculates air temperature at six inches above the turf; soil temperatures come from a probe buried two inches below the surface of #4 green.

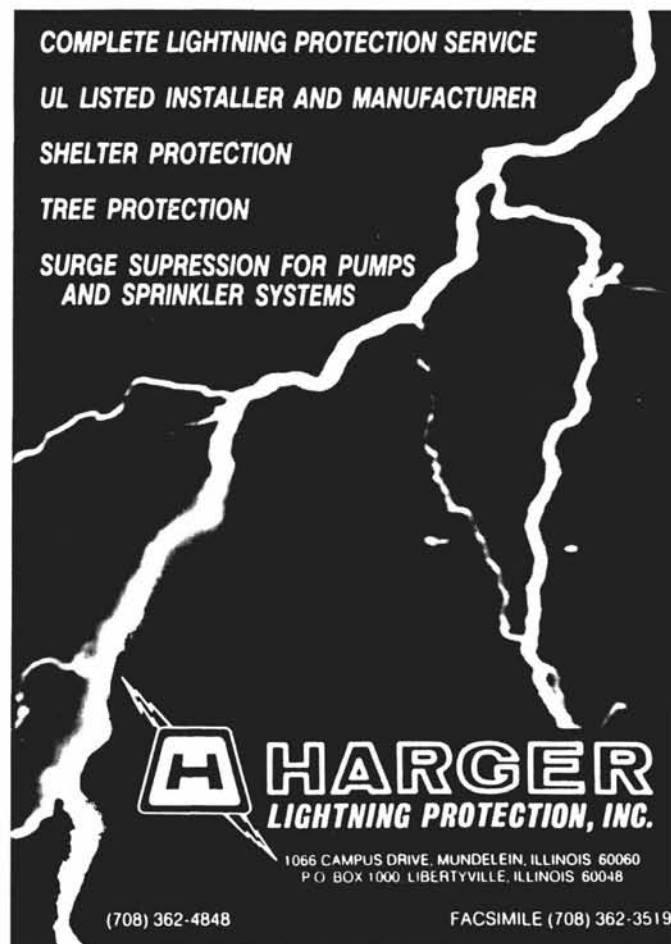
Time	Air Temp	Soil Temp
11:36 am	96.31	97.02
12:36 pm	98.44	99.86
1:12 pm	99.86	100.58
1:36 pm	100.58	101.28
2:12 pm	101.28	101.98
2:48 pm	102.34	102.34
3:00 pm	102.34	103.06!!!
3:12 pm	103.06	103.06
3:48 pm	102.34	102.34
4:12 pm	102.34	101.64
4:48 pm	101.64	100.92
5:36 pm	98.08	100.22
6:00 pm	96.31	99.16

As the table indicates, soil temperatures peaked at 103.06, #4 green experienced four and a half hours with soil temps over 100 degrees. Dan hypothesizes that conditions on #7, #17 and #18 greens were even more devastating. These greens face east down open fairways and soak up hours of direct morning sunlight. Aesthetically pleasing but functionally detrimental stands of mature trees frame the greens at issue, buffering them from summer's predominant south to southwest breezes, thereby creating a "dead air" phenomenon.

Dan explains that most of the destruction wrought by this summer's excruciating heat is not visible to golfers. If the greens at North Shore C.C., or at any given golf course in Chicagoland, appear healthy, if not somewhat parched or stressed, consider it illusory. Poa annua's root complex is the most telling piece of the puzzle. When soil temperatures climb as high as they have this summer, poa annua's roots die back. The few remaining roots scarcely penetrate the surface soil. Obviously, the plants lose access to vital stores of moisture. Over-irrigating turf is no solution; excess water conducts heat and fosters disease. At North Shore, Dan has instituted a regimen of watering little (in terms of sheer volume) and often. His other guiding principles for care of poa annua-infused greens:

- Forego grooming. Normally his crews groom every time they mow.
- Skip double-cutting and roll instead.
- Mow clean-up pass only every other time, to avoid wear at the fringe.
- Use lighter mowers.
- Raise cutting height (North Shore went from .125 to .130).
- Install generator-powered fans at perimeter of greens lacking air movement and shade.
- Verti-drain particularly vulnerable greens.
- Trim back overgrown foliage that fosters "dead air" pockets.

(continued bottom page 18)



COMPLETE LIGHTNING PROTECTION SERVICE
UL LISTED INSTALLER AND MANUFACTURER
SHELTER PROTECTION
TREE PROTECTION
SURGE SUPPRESSION FOR PUMPS AND SPRINKLER SYSTEMS

HARGER
LIGHTNING PROTECTION, INC.

1066 CAMPUS DRIVE, MUNDELEIN, ILLINOIS 60060
P.O. BOX 1000, LIBERTYVILLE, ILLINOIS 60048

(708) 362-4848 FACSIMILE (708) 362-3519

**Please Support
Our Advertisers**



BOJO

Turf Supply Co., Inc.

- Naiad + Aqua Gro
- Panasea Plus
- Chemicals
- Sand Aid
- Fertilizers
- Thatch X
- Terra Green
- Pinhigh Sharpening Compound
- Chipco
- Tingley Boots & Raingear
- Flexogen Hose
- Terra Green - OilDri

Excellent Service at Reasonable Prices

24356 HARVEST HILLS RD., • FRANKFORT, IL 60423

800-732-9401

815-469-6841

Fax: 815-469-8248

(Thank You Sponsors continued)

July 9 Steeple Chase G.C.

Agr Evo
Central Sod Farms
Chicago Turf and Irrigation
E-Z-Go Golf Cars
Hendricksen, The Care of Trees
Nadler Golf Car Sales/Club Car

Kane County Cougars Outing

Accurate Tank Testing
Chicago Turf and Irrigation

August Hughes Creek G.C.

Arthur Clesen, Inc.
Hollebeak Excavating/Construction
J.W. Turf
Midwest Turf and Tractor
Nadler Golf Car Sales/Club Car

September Prairie Landing G.C.

BOJO Turf Supply
Cannon Turf Supply
Hendricksen, The Care of Trees
Illinois Lawn Equipment
Nadler Golf Car Sales/Club Car
Turf Products

October Sportsman's C.C.

Anton's Greenhouse
Arthur Clesen, Inc.
Illinois Lawn Equipment
J.W. Turf
Nadler Golf Car Sales/Club Car

Midwest Breezes continued on page 32

(Poa — July 13 continued)

Ultimately, of course, Dan prefers a permanent solution; regrass greens with more viable creeping bent. Subsequent to the July 13 crisis, notes Dan, "the Poa annua lost its roots, but the bent still had roots to the bottom of the cups." Science corroborates Dan's anecdotal evidence. "At higher soil temperatures (75 to 85 degrees Fahrenheit) creeping bentgrass has a distinct competitive advantage over annual bluegrass" is the consensus among plant pathologists.

While regrassing is expensive in the short term, in the long term Dan believes bentgrass greens are more cost-effective. "Keeping Poa annua alive in summers like this isn't much fun and it is costly", says Dan. "We feel confident that good golfers will like putting on the new upright bents and we will enjoy managing the bent."

Sounds like a win-win situation, which is more than can be said about how Poa annua stacked up to creeping bent during the steamy summer of '95.

Team Wins Local Golf Tournament Qualifies for International Funds

The La Grange Country Club team, La Grange, IL, recently won the John Deere local golf tournament held July 24, 1995 at the Orchard Valley Golf Club, Aurora, IL. The tournament was sponsored by John Deere Golf and Turf Products distributor J.W. Turf, Inc. with locations in Hampshire, IL and Pewaukee, WI.

The La Grange Country Club team, one of 43 teams competing, qualifies for a spot in the ninth annual John Deere Team Championship Golf Tournament, to be held at the Wild Wing Plantation, in Myrtle Beach, SC, October 26-28, 1995.

Members of the La Grange Country Club team are Victor Whipp, PGA Professional; Robert Kronn, Club Superintendent; Robert Nelson, Club Manager; and Richard Crain, Club President.

Teams from across the United States and Canada, winners of their respective John Deere local golf tournaments, advance to the tournament finals. The winning team will be joined for the tournament finals by a representative from J.W. Turf, Inc., the John Deere Golf and Turf Products distributor who sponsored the local tournament.

John Deere contributes \$20 to the Golf Course Superintendents Association of America (GCSAA) Foundation (formerly GCSAA Scholarship & Research) for each of the teams competing at the local tournament. John Deere has contributed nearly \$100,000 since the tournament's inception in 1987.

DUNTEMAN
TURF FARMS
Growers of Quality Sod

SERVICE!
LOCAL GROWING FOR
EASY PICKUP OR QUICK DELIVERY.
DELIVERY ON TIME, EVERYTIME.

QUALITY!
FEATURING
ELITE KENTUCKY BLUEGRASS,
BENTGRASS SOD, AND
TURF-TYPE FESCUE
• LOWER MAINTENANCE
• MORE DROUGHT
& SHADE TOLERANT
• BETTER WEAR RESISTANCE

PRICE!
CALL FOR A QUOTE

708-557-2900

MAIN STREET
11 MILES WEST
OF BATAVIA, IL

Chicago

Map showing location near Elgin, St. Charles, Geneva, Batavia, Aurora, and Chicago, IL. Street names include Kesinger Rd, Main St, and Dauberman Rd.