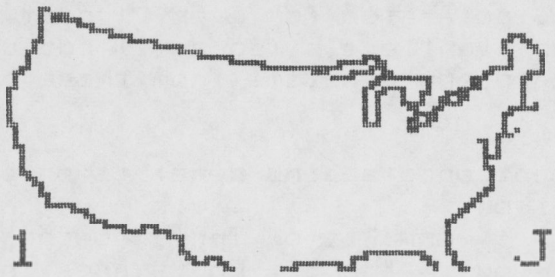
TURFCOMMS



VOL.2, ISSUE 1 JAN. 31, 1986

PURPOSE: To pass on what we learn willing and happily to others in the profession so as to improve turf conditions around the country.

BENTGRASS IN TEXAS - Conversion to bentgrass is the thing to do here in Texas. Three local courses here have used three different approaches. These are Roundup at bermuda killing rates in early fall; methyl bromide just before seeding; and a complete rebuild from base drainage up. All three appear to have been successful. The drainage was good on the first two and poorest on the third. The third course needed larger greens and alot of trees cut down. The trees are not yet down but better be come June if those greens are to get through next summer. Air circulation is a major problem on this course.

The course that used the methyl bromide approach spent $10,000 for a contractor to apply that material as well as another $17,000 for materials to insure that the conversion was successful.

We now have two courses with bentgrass greens in the Houston area. The usual line I draw thru Texas for successful bentgrass is north and west of San Antonio, Austin, Dallas and Sherman. Or I 35 north to Dallas than switch to route 75. There are the above two courses as exceptions along with a very few in the greater Dallas area just east of the line. Not surprising that line continues on up into Oklahoma. The first bentgrass exception to no bentgrass east of Rt 75 is Muskogee Country Club, I believe. Rainfall and humidity maps will supply the answers as to why the line exist where it is.

You will find many bermudagrass greens north and west of this line. However, very few of those are successful north and west of a line thru El Paso, Lubbock, Oklahoma City and Tulsa. Average low daily winter temperatures I assume explain this line. On many courses around this line you may encounter greens with both bentgrass and bermudagrass in them.

At present all courses with bentgrass greens east of the San Antonio - Sherman line are private country clubs with either large greens or a low number of rounds. Even moderate play (35,000) rounds on small greens does in two greens or more on some of these clubs. Almost always these are greens that have the prevailing south breezes blocked.

We do have a municipal course in Garland trying to go to bentgrass and a 36 hole daily fee course at the Dallas/Fort Worth Airport. Both of these courses charge higher than average green fees so I assume they operate with 40,000 rounds or less per course per year. END

DR. BEARD RECOMMENDS A VERY low to a moderately high level of nitrogen for bentgrass greens in Texas. He suggested a range of 0.1 to 0.3 pounds of N per 1000 sq. ft. every 10 to 15 days if using a fast release nitrogen source. Double the amount and lenght of time between applications if using slow release materials.

At the low rate and longest interval that would be 2.43 lb. N/ year. At the high end that would be 10.95 lb N/1000/ year.

FOR MORE SEE - DR. BEARD (CONT) PG. 2

TURFCOMMS IS PUBLISHED AT UNPREDICTABLE INTERVALS BY EDITOR AND PUBLISHER:

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DR. BEARD (Cont.) - Potassium levels were the next item that I have notes on. Here he recommended a one to one ratio of nitrogen to potassium once soil levels enter what soil test call the high range. He reported having heard of superintendents using as high as 3 potassium for every 1 part of nitrogen. He was amazed by such high levels (so am I) but did not report having seen or heard any problems from those high potassium levels.

Beard also mentioned seeing benefits on bentgrass from higher levels of iron.

Arm Pit of Turf Growing

For those of you in the St. Louis area, he referred to it as "the arm pit of turf growing". By that it was quite clear he meant that it was one of the worst places to manage creeping bentgrass greens.

To me Tulsa, Kansas City, Washington, D.C. and Dallas all come close to St. Louis for that dubious claim to fame. Dallas makes the list more on length of season than humidity. St. Louis is probably more consistently hot and humid in the summer than the other locations. But, let us look at some weather data.

If we use Toro's Rainfall-Evapotranspiration Data for these cities we find that the Washington, D.C. area has the least difference between evapotranspiration and rainfall during the summer months. Thus this area allows the superintendent the least potential of cooling greens off by evaporation from a light syringing.

The chart below shows the potential inches of water that could be lost to evapotranspiration above average rainfall. Evaporating water provides a great deal of cooling.

Arlington, VA (just west of Washington, D.C.)	June - Aug	Total	Diff.	6.60	inches
Hyattsville,Md(just east)	"	"	"	6.84	"
Ks City - - - - - - - - - -	"	"	"	8.20	"
St. Louis - - - - - - - - -	"	"	"	9.21	"
Tulsa - - - - - - - - - -	"	"	"	11.76	"
Dallas - - - - - - - - - -	"	"	"	17.46	"

Other factors that one needs to consider is average night temperature, and humidity (discomfort index). Also as mentioned above the length of the summer as measured perhaps by night temperatures above 70 degrees Fahrenheit. The lack of sunshine during humid weather can be a factor. A series of warm cloudy days can be very detrimental to the cool season grass plants.

Of the cities being considered Washington, D.C. according to weather data tends to have slightly less hours of actual summer sunshine (more cloudiness) than St. Louis. Dallas, Tulsa and Kansas City receive a fair amount more sunshine than those two cities. Washington has just a slightly higher level of humidity than St. Louis in the summer months. Dallas and Tulsa are hotter than the others in the summer and less humid.

Based on the evidence and personnal experience I'll vote for Washington, D.C. as the worst Arm Pit of Turf Growing. What is your choice?

Micro vs. Macroclimate

The above climate data makes it sound simple to predict where bentgrass will have the most trouble surviving. But, many golf course superintendents that live in much more favorable climate have a green or two in their care whose microclimate is as bad as Washington, D.C.'s climate at its worst. Typically when considering summer stress those greens with the lousy microclimate are in low humid pockets where the prevailing summer breezes are well blocked off. Those poor greens may not be in the "Arm Pit of Turf Growing" but, they are in what might well be called the "arm pit" of that golf course.

Plus Air Pollution

Let us add one more factor to this arm pit business. The unwashed and unaired arm pit soon develops a strong odor. Many urban areas in times of no rain, stagnant air, and heat develop air pollution that is strong enough to severely damage sensitive plants. Poa annua is considered to be one of those pollutant sensitive plants. Creeping bentgrass is not that much more resistant to damage from air pollution. Air pollution levels although generally improved in many cities over the last decade still can be high enough at times to be the proverbial straw that breaks the camels back. Air pollution levels in some of the rapidly growing cities such as Dallas are on the rise.

Dear Mr. Hawes,

Thank's for the Penncross mention, but there is an error on the phone number. It should be 1-800-547-0255.

Sincerely,
Bill L. Rose, President
Tee 2 Green Corp

COMMENTS ON TEES FROM AN ARCHITECT

I enjoyed your tee discussion in the September issue of Turfcomms. Tee construction has long been ignored as far as I'm concerned and proper tee placement has been an interest of mine since I got in the business thirteen years ago.

A dozen years ago our golf course architectural firm attended an LPGA Pro-Am in California and charted drives on four holes. Each foursome was made up of one lady professsional, two men amateurs and one lady amateur. The was a handicap restriction for the amateurs so they weren't occassional golfers.

Our measurements of approximately 500 drives indicated and average length for lady pros of 202 yards, men amateurs 200 yards and lady amateurs 159 yards. In the past 12 years equipment

is better and that day they complained they weren't getting a lot of roll (everyone thought their drives were farther than they were) but I believe the ratios are still valid. Lady pro's are roughly the same length of men amateurs (which is a wide range) and lady amateurs are roughly 80% as long as men amateurs.

I used to be idealistic and try to place ladies tees roughly 80% the length of the hole for men, believing that men and women golfers of equal abilities ought to be able to each hit their "average" drive and then approach with the same club. However I encountered two problems. First, the break-points between par 3's & par 4's (210 for women ? vs. 250 for men) and par 4's & 5's (400 for women vs. 470 for men) does not allow you to do this and gets worse the longer a hole gets. Second, the better players who dominate ladies clubs and sections generally don't want a shorter course even if they can't break 90. Why they want to play a par-75 course and hit 2 woods to par 4's is beyond me but I've never had any luck convincing them other than a hole or two.

On a new course I generally place the ladies tees so that they yield a course 87.5% of the men's regular yardage. Where there's no standing group of ladies, they like this "advantage" which they generally get at a resort-course. On country clubs I like two tees, although three tees is much more common. I believe there is a place for a set of tees that yield a course just over 6000 yards (either a 3rd or 4th set) that should be played by better ladies, juniors, seniors and high-handicappers. It does need to be rated for both men and women, but you could do that for both existing red and white tees also. It would help if you didn't call them men's and women's as would using a different color scheme.

One more thing to think about. I also charted drives at a "retirement community" golf course some years ago. They weren't the best golfers and there was no one under 45, but they do play a lot of golf. On one hole I noted that 80% of the women couldn't carry a creek 40 yards off the tee which means their tees must be placed carefully when forced carries are involved. More importantly superintendents may want to consider that when they are thinking about having their golfers carry a certain amount of rough off the tee.

Sincerely, John R. Steidel, Golf Course Architect
Dallas,TX and Kennewick, WA

SUPER GETS RECOGNITION

Superintendents constantly complain about not getting credit for what they do. Does anybody recognize the repeat winner of the GCSAA's annual golf tournament in this paragraph below lifted from Harless Wade's column in the 1/12/86 Dallas Morning News.

"Much has already been written about Gleneagles, a product of Dallasites Art Barnes, Bobby Folsom, T.C. Hamilton and Larry Delzell. Still not in total operation, it already has a well-deserved national reputation that is sure to grow."

END