


JB COMMENTS

Takeall patch (*Gaeumannomyces graminis* var. *avenae*) was originally recognized primarily as a problem of bentgrasses in the U.S. Pacific Northwest. It then became an increasing problem on the European continent. More recently *G. graminis* var. *graminis* has emerged as a problem of closely mowed hybrid bermudagrass (*Cynodon dactylon* x *C. transvaalensis*) putting greens, which is called bermudagrass decline. **Now *Gaeumannomyces graminis* var. *graminis* has emerged as an increasing disease problem of zoysiagrass turfs in Japan.** The world is becoming a global economic community, with global diseases of turfgrasses.

The Japanese authorities are progressing on schedule in the construction of new stadia to host the World Cup of Soccer in the year 2002. There will be a diversity of stadium designs, ranging from the traditional open stadium to the retractable dome to a **domed stadium with a turfed soccer field that is stationed outside the stadium for regular maintenance and exposure to normal solar radiation, and then is moved as one unit into the stadium for soccer**

competitions. This design has been very successful from a turf standpoint at the new Arnhem, Netherlands stadium. One Japanese stadium also will have **(a) specially designed, large air ducts extending through the stadium at field level to enhance air movement, and (b) an upper profile shape and a stadium orientation designed to minimize shading of the turfgrass.**

I visited the Toyama Soga Athletic Park in western Japan, where a three dimensional interlocking mesh system has been installed on a baseball complex of two fields, with two more fields being added. These fields are planned for use as car parking areas when the main stadium is in use. They are minimum-maintenance sport fields planted to Japanese zoysiagrass (*Zoysia japonica*). **These fields are maintained at a very low nitrogen fertility level, as a yellow-green color for turfs is very acceptable in Japan, and in fact desired.** In this case, their mowing schedule is five times per year, with a 6 to 7 month growing season—quite a different concept from what is done in many other locations around the world. 


ASK DR. BEARD

Q. Should I raise the cutting height on my putting greens during the winter period?

A. In almost all cases **it is beneficial to raise the cutting height on putting greens during winter periods when suboptimal temperatures occur.** This is especially true when an extraordinarily low cutting height—less than 5/32 inch or (4 mm)—is being employed. There are two situational aspects: (a) one involves severe cold environmental conditions where golf play does not occur, and (b) the second involves intermediate suboptimal temperatures where winter play is more common.

Severe Cold-Snowy Climates. Raising the cutting height prior to the winter period is especially beneficial on putting greens composed of such species as annual bluegrass (*Poa annua*) and hybrid bermudagrass (*Cynodon dactylon* x *C. transvaalensis*). The higher cutting height with resultant greater leaf area is important in increasing the photosynthetic capability of the turf canopy. This produces higher plant-available carbohydrate levels, which result in increased rooting, thereby reducing winter desiccation problems. **The higher carbohydrate levels also are involved**

in a key phase in the development of low-temperature hardiness of turfgrasses. This hardiness phase occurs at temperatures between 35 and 45°F (2 and 8°C).

Intermediate Suboptimal Temperatures. A higher cutting height is equally important during winters with intermediate suboptimal temperatures allowing winter golf play. In this case the shoot growth typically is at a very slow rate, which results in minimal to no recuperative capability. **The higher cutting height results in a greater turf biomass, which increases the wear tolerance of the turfgrass during this winter nongrowth period.** Sustaining extraordinarily close mowing heights during the winter typically results in thinning of the turf during intense wear stress. Traffic and the allied wear stress, which results in significant thinning of the turf, has the potential consequence of increased *Poa annua* invasion. 

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