**GCSAA commissions comprehensive water study**

**ORLANDO, Fla.** — The Golf Course Superintendents Association of America (GCSAA) has awarded a research grant to Environmental & Turf Services (ETS) to critically review water-quality monitoring results from golf courses across the country.

"Very few golf course monitoring studies have been published in peer-reviewed literature," said Dr. Stuart Cohen of ETS, principal investigator of the project and the director of the Cape Cod Study of golf course ground water. "This effort will be a major step beyond the Cape Cod Study (which summarized results of four golf courses). It will also be a significant expansion in depth and breadth beyond the article we wrote for the February 1994 issue of Golf Course News."

That story summarized the results of 13 studies of 25 golf courses from Massachusetts to Guam. The results of the studies were overwhelmingly favorable for the golf course industry.

Approval of the proposed new research was made by GCSAA's board of directors at the International Golf Course Conference and Show here.

The project will be a comprehensive summary of other studies. The objective is to publish a critical evaluation of the impacts of golf courses on ground and surface water quality. Attempts will be made to draw meaningful conclusions.

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**New bents need different care**

**BY PATRICK M. O'BRIEN and CHRISTOPHER HARTWIGE**

Much of the discussion on the new bentgrass varieties has focused on differences like color, texture and summer performance. But information on how best to maintain these varieties has been limited. Should they be maintained similarly to the most common bentgrass, Penncross, or are changes necessary in the basic management program to maximize their performance?

An overwhelming majority of superintendents with one of the new varieties such as Crenshaw or the new Penn series (A-1, A-4, G-2, G-6) believe maintenance programs need to be modified to manage them effectively. Here is a review of these management differences and specific practices that may need to be modified.

The 1990s have been an exciting time for bentgrass managers. More varieties are available than ever before. Many were developed to improve tolerance to the high heat and humidity common to the Southeast. Many new varieties have a higher plant population per unit area compared to Penncross and offer the golfer a higher level of putting quality. The combination of these improvements results in varieties with improved playability characteristics.

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**Dealing with big brother**

**BY TERRY BUCHEN**

Superintendents who do not receive a certain fringe benefit from their employer now can look to the Internal Revenue Service (IRS) for help in determining how to claim it for tax purposes. IRS announced in September that it will soon be publishing special rulings that will include information on fringe benefits commonly given to golf superintendents.

Although the U.S. Golf Association has spent millions of dollars in the last few years to fund pesticide and nutrient fate studies in golf course settings and at university field stations, not one of the studies was conducted to assess the amount of ground water from golf courses. The ETS study is intended to coordinate information from studies specifically designed to sample ground water from golf courses.

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**Metsker earns Tradition Award**

**BY MARK LESLIE**

MARYSVILLE, Ohio — Stanley Metsker, who was instrumental in pushing the Golf Course Superintendents Association of America (GCSAA) to accept certification, has been chosen for the Scotland Tradition of Excellence Award.

Metsker, 59, of the Country Club of Colorado in Colorado Sprngs, will be presented the Excellence Award during the PGA Senior Tour's Tradition tournament at Desert Mountain in Scottsdale, Ariz.

Although Metsker feels his crowning achievement was pushing certification for the first through the Rocky Mountain Golf Course Superintendents Association (RMGCSA), then through GCSAA, his Metsker earns Tradition Award

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**The Best at What They Do**

**Hunker tops in TPC Network**

**BY PETER BLAIS**

**ORLANDO, Fla.** — Outstanding tournament conditions, Audubon certification and a happy membership combined to earn superintendent Ted Hunker of the Tournament Players Club at River Highlands in Hartford, Conn., the TPC's designation as its top operation of the year.

Hunker received the award at the annual gathering of TPC superintendents held here during the International Conference and Show.

"The winning operation had such a terrific year it was a very clear choice," said Cal Both, director of maintenance for PGA Tour Golf Properties. "The head superintendent was very deserving of this award." That superintendent was Hunker.

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The rules of management have changed with new bents

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To maximize performance, several key maintenance practices may need to be modified.

- **Irrigation**: Determining the amount and timing of irrigation for a Penncross green during a Southeastern summer is one of a superintendent's most challenging tasks. Several new varieties such as Crenshaw, the Penn series, and SR1020 maintain deeper root systems during the summer than Penncross. As a result, these bents require a different irrigation program, with longer intervals between watering. Less frequent irrigation will be a great weapon in trying to reduce turfgrass disease. Additionally, a better rooted turf will require less hand-watering on a day-to-day basis.

- **Fungicides**: Healthier bentgrass requires less frequent irrigation and fewer fungicide applications at longer intervals. Many new bentgrasses have shown improved summertime performance, but frequently superintendents do not deviate from their Penncross management program. Not reducing fungicide applications means failure to realize savings from lower fungicide use and reduced labor. Also, some new bentgrasses may not perform at their best under a traditional Penncross fungicide program.

Although there is a lack of research on fungicide programs for the new bents, superintendents can learn valuable information by using untreated check plots on greens and experiments on a nursery green. It is very important to leave an untreated area on the back of one or more greens. This allows the superintendent to examine both the intended, and sometimes the unintended effects, of a fungicide application. Additionally, a nursery green is a great place to experiment with reduced fungicide use or longer intervals between applications.

- **Mowing height**: Based on observations in the field, it appears that varieties such as Crenshaw and the new Penn series perform better under lower mowing heights. Crenshaw has more than twice as many plants per unit area compared with Penncross, while the Penn series varieties have almost three times as many. The recommended mowing height for the Penn series varieties is 1/8 inch. Failure to maintain a low mowing height can result in turf that is puffy and slow, with higher thatch production.

- **Aerification & top dressing**: Varieties with high plant populations produce higher accumulations of organic matter than Penncross. As a result, core aerification and top dressing are important tools to avoid an excess build-up of organic matter and to maximize the performance of these greens. Thatch is only a problem if it is allowed to accumulate to an excessive level. For courses where the green committee frowns on aerification and top dressing, some bents with the highest plant populations may not be suitable.

- **Nitrogen requirement**: Little work has been done to determine the optimum level of nitrogen for these grasses, but early evidence suggests nitrogen levels will probably differ from those used on Penncross. An interesting note about Crenshaw: Many superintendents growing Crenshaw feel it maintains a darker green color at lower nitrogen levels than Penncross. However, research conducted by Dr. Bob Carrow of the University of Georgia reveals that Crenshaw does better under a high nitrogen level. Carrow recognizes this paradox and suggests monitoring clipping levels to help determine the need for N applications to Crenshaw.

### CONCLUSION

Based on many field observations and discussions with superintendents, the new bentgrass varieties probably will clearly do better under management programs different from that for Penncross. More than one superintendent has offered this advice: "When growing one of the new bentgrasses, forget everything learned in the past about Penncross.

The new varieties are giving golfers improved greens in the Southeast and offer superintendents the opportunity to experiment and learn how to maximize performance.