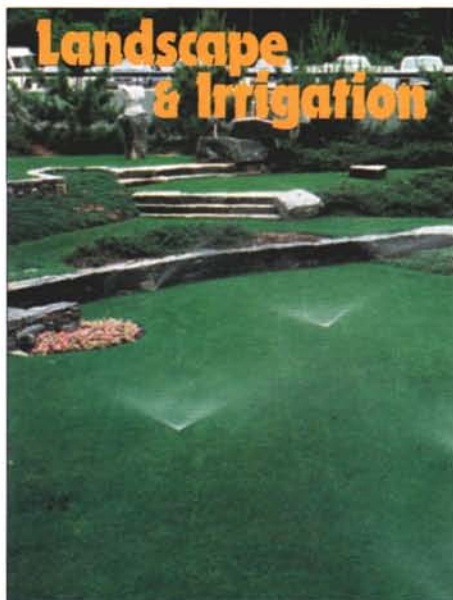
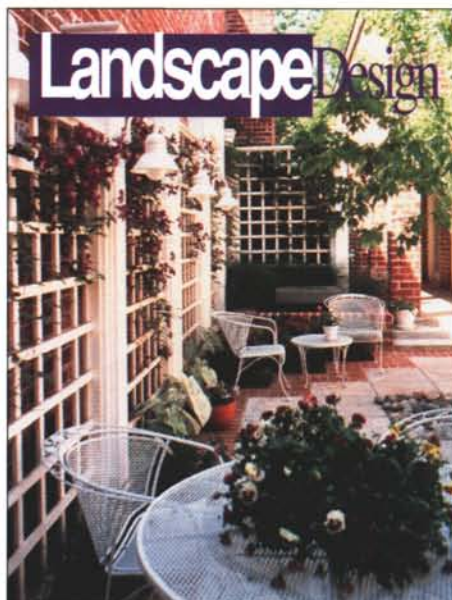


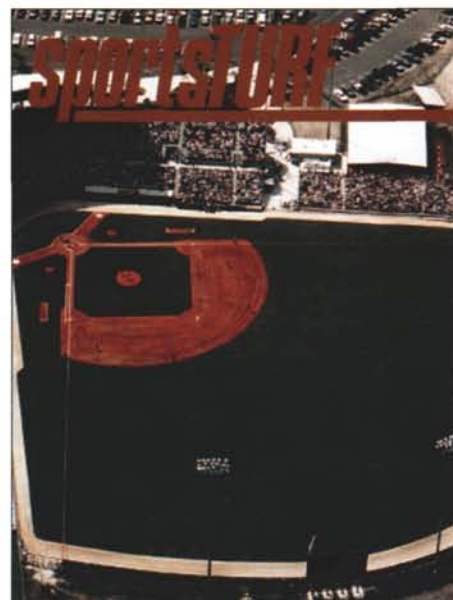
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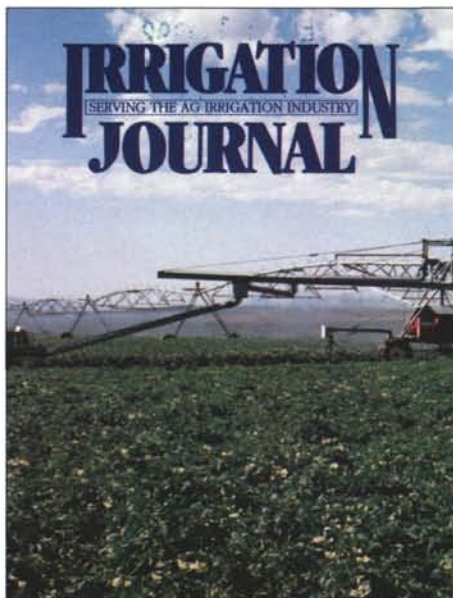
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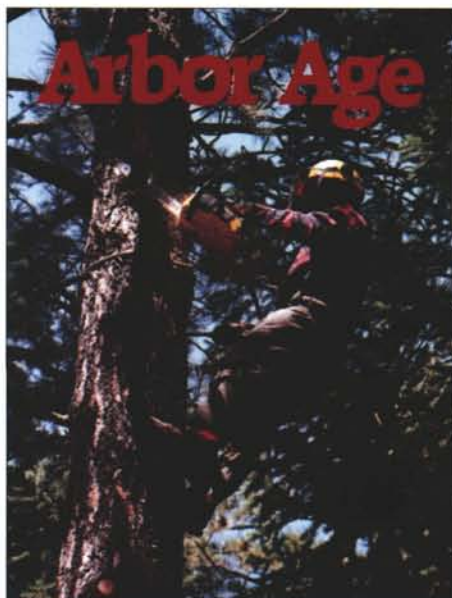
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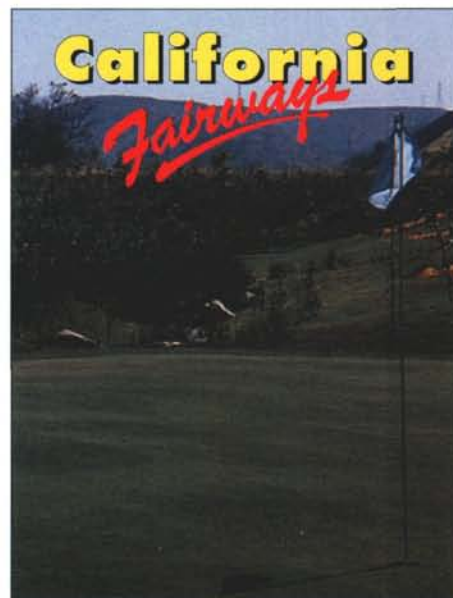
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**Official Magazine of:** Sports Turf Manager's Association



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**Market:** California Golf Course Superintendents  
 & Greens Committee Chairmen  
**Official Magazine of:** California Golf Course  
 Superintendents Association



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VOLUME EIGHT, NUMBER ELEVEN

NOVEMBER/DECEMBER 1992

## MAIN EVENTS

### 8 FIELD LIGHTING: ILLUMINATING EXPERIENCES

In the beginning, there was baseball and football — and they couldn't be played after sundown. Today, night games entertain millions of fans each year, from Little League to the National Football. A look at the technology that brings sports into the night.

### 14 GETTING A HANDLE ON CHEMICAL STORAGE

Vital as they are for sports turf management and more, hazardous chemicals must be stored properly. A "common sense" overview of basic, practical approaches to choosing containment vessels for these powerful tools.

### 20 1992 PRODUCT SOURCE BOOK

Looking for the perfect spreader or sprayer? Mower blades that can cut it? Ryegrass seed for the brilliant spring green-up? If it's a sport turf management tool, you can find it here.

### 26 1992 SOURCE BOOK ALPHABETICAL LISTING

Manufacturers of today's hottest sports turf products, from A to Z.

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**ON THE COVER:** Lighting brings Major League Baseball action into the night at Oriole Park (top) at Camden Yards in Baltimore and at the New Comiskey Park in Chicago.  
Photos courtesy: General Electric Lighting Systems, Hendersonville, NC.

Most utility vehicles are swell, provided your cargo fits perfectly in a four-foot box



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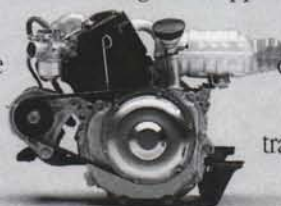
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# THE FRONT OFFICE

OPINION PAGE

## Greed On-Deck



**H**ow's this for a scouting report on the 1993 Major League Baseball Season? Rob Dibble will intimidate no one. Jose Canseco won't tag 30 home runs, or first base for that matter. The gold won't glitter on Ryan Sandberg's glove. Tommy Lasorda won't argue a single call.

Conventional baseball wisdom, if there is such a thing at this point, has it that come spring in 1993, the owners will lock out the players. The issues, of course, are money and ego, subjects both the players and owners know well.

The players look to the free market. They are, they argue, entertainment commodities, and as such should go to the highest bidder. The owners contend that such a market will kill them financially and that player salaries are already more than fair.

Who's right?

Who cares? Here are two groups of very wealthy individuals, each accusing the other of greed. Their current squabble would be laughable, if it wasn't going to hurt so many not-so-wealthy people at a time when they can least afford it.

How many full-time employees will baseball field managers and superintendents be forced to lay off in 1993? How many part-timers won't be hired at all?

How many ushers, vendors, and other stadium employees will have to look for other work in a tough economy? And what about the fans — people deprived of a sport they've supported *economically* — through either attending games or buying products advertised during televised games — for years?

We are *all* entitled to earn as much as we can, dictated, in theory at least, by our individual efforts, talents and opportunities. We want the best for our families, our friends, and ourselves. The players and owners are no different. Although they earn piles of money high enough to make everyone on your block "rich," they still have the same "right to earn" as the rest of us. No argument here.

Yet rather than responsibly work out their differences in the off season, they'll wait until it's time to play ball, then cry foul. Rather than reach an agreement that could save thousands of associated jobs for people without a financial "cushion," they'll take their respective hard lines and dig in. Each group will try to muster public support through the media. Each will try to make the other look greedy.

So here's another scouting report for Major League Baseball owners and players: You *already* look greedy. Unless by some miracle of good sense you solve this impending, sorry mess in the off season, public support will be as elusive as an unassisted triple play.

Matthew Trulio

# EVENTS

CALENDAR

## DECEMBER

**10-11** Eighth Annual Desert Turfgrass & Landscape Conference & Show, Riviera Resort and Hotel, Las Vegas, NV. Contact: Show Director (800) 877-3107.

**13-15** STMA Annual Meeting & Exhibition, Indianapolis Convention Center, Indianapolis, IN. Contact: Bret Kelsey or Susan Seibert (312) 644-6610.

**15-16** Turfgrass and Ornamental Pest Control Workshop, Turfgrass Technology Center, Marion County Extension Office, Indianapolis, IN. Contact: Jeff Lefton (317) 846-7020.

**15-17** 1992 Missouri Lawn & Turf Conference & Trade Show, Holiday Inn Executive Center, Columbia, MO. Contact: Missouri Valley Turfgrass Association (314) 882-4087.

## JANUARY

**4-6** Ontario Turfgrass Symposium & Trade Show, University of Guelph, Guelph, Ontario, Canada. Contact: Kelly Wilson Office of Continuing Education (519) 824-4120, ext. 3814.

**4-MARCH 12** Rutgers Professional Golf Turf Management School, New Brunswick, NJ. Contact: Office of Continuing Professional Education, Cook College, Rutgers University (908) 932-9271.

**5-7** 63rd Annual Michigan Turfgrass Conference, Holiday Inn—South Convention Center, Lansing, MI. Contact: Kay, MTF office (517) 321-1660.

**11-14** Advanced Turfgrass IPM Short Course, University of Maryland, College Park, MD. Contact: David Laughlin, Dept. of Entomology, University of Maryland (301) 405-7665. Register by December 15.

**15-16** WinterGreen '93 Annual Conference and Trade Show, Georgia International Convention & Trade Center, College Park, GA. Contact: The Georgia Green Industry Association (706) 492-4664.

**23-30** Golf Course Superintendents Association of America 64th Annual Golf Course Conference and Show, Anaheim Convention Center, Anaheim, CA. Contact: GCSAA (913) 832-4430.

Send announcements on your events *two months in advance to:*  
editor, sportsTURF magazine,  
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## EMMONS JOINS JACKLIN

Matthew Emmons has joined Jacklin Seed Company's International Marketing Department. He will work with the international market, specializing in export sales of turfgrasses, forage grasses, and legume seed to the EEC as well as Scandinavian and Eastern European countries. He will also be involved in a special project with the People's Republic of China.

Prior to joining the company, he was a senior legislative assistant to Congressman John Miller. He was responsible for briefing the Congressman on his committee work, including the house Merchant Marine & Fisheries, Public Works & Transportation, and Judiciary and Agricultural Committees.

## KNOOP NAMED LAWN INSTITUTE TECHNICAL DIRECTOR

Dr. William E. Knoop, professor and extension specialist, Texas A & M University/Dallas, has been named to serve as technical director for The Lawn Institute. His responsibilities will include technical editor of the institute's publications, conference speaker, and technical resource spokesman.

He is well-known throughout the industry. His consumer education program, "Don't Bag It," designed to reduce the flow of grass clippings and other landscape debris from the solid waste stream received and award for Environmental Excellence from the EPA.

## HARKER PROMOTED

Steve Harker has been promoted to vice president of marketing and sales for American Golf Corporation.

He began working for the company in 1971 and has held several positions, including general manager, regional director, and director of sales. Harker is also a member of the PGA of America.

## HALE IRWIN TO KEYNOTE SINGAPORE CONFERENCE

Hale Irwin, PGA tour professional and golf course designer, will be the keynote speaker at the opening session of the Pacific Rim Golf Course Conference and Show March 19 to 21 in Singapore.

He will speak on the state of golf course design and construction and how these relate to the future of golf in the Pacific Rim. More than 2,500 course owners, developers, architects, builders, designers, managers, and superintendents/greenskeepers are expected to attend to conference and show.

## TURFGRASS INDUSTRY COMMITS \$700,000 TO NCSU

The North Carolina Turfgrass Industry has committed \$700,000 to North Carolina State University's Century II Capitol Campaign and the establishment of the Turfgrass Research and Extension Endowment. Of the total, \$500,000 will be used to establish the endowment, earnings from which will support turfgrass related research and extension programs in the uni-

versity's College of Agriculture and Life Sciences. The balance will be used for student scholarships in the two- and four-year turfgrass curriculums.

The endowment is a transformation of the former Turfgrass Research and Extension Fund, which was established 12 years ago. The change is intended to provide a more predictable and permanent source of supplemental funding for the programs.

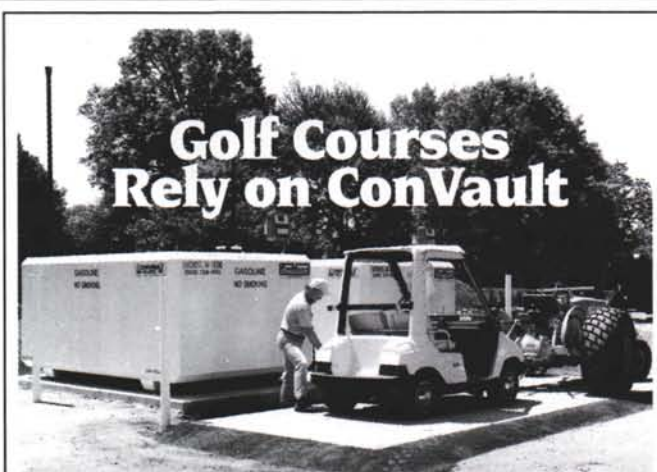
The Turfgrass Council of North Carolina represents more than 1,600 members. It is involved in research and scholarship, as well as public and governmental relations.

## GOVERNMENT RELATIONS SEMINAR AT GCSAA CONFERENCE

The Golf Course Superintendents Association of America is offering a one-day government relations seminar during the International Golf Course Conference and Show, which will take place January 23 to 30 at the Anaheim Convention Center, Anaheim, CA.

Seminar topics will include: "Posting and Notification," presented by Stephen Johnson, director of field operations for the Office of Pesticide Programs at the Environmental Protection Agency; "Protected Wetlands Issues," by Robert H. Wayland, III, director of the Office of Wetlands, Oceans, and Watersheds for the EPA; and "How to Deal With News Media," by Shirley Fulton, Capital Communications Group.

For more information, contact GCSAA headquarters at (913) 841-2240.



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# FIELD LIGHTING: ILLUMINATING EXPERIENCES

BY CHUCK LINDSTROM



Indoor lighting for the Metrodome in Minneapolis, MN. Light levels of 200 to 300 footcandles are necessary for good color rendition of television transmission.

Lights are to night time sporting events what coffee is to breakfast. From professional athletic contests, with television revenue in the balance, to youth leagues that must run when parents and coaches are not working, night games are not just a pleasant reality — they're a necessity.

Sports lighting design philosophy is basic to quality lighting. A number of considerations must be balanced when determining the best design for a given

facility. At the heart of these are two basic questions that must be addressed:

1. What requirements must the lighting system fulfill?

2. What outside factors need to be added to the design equation to make the project acceptable?

### Lighting Level Requirements

Lighting levels are recorded in footcandles. Sunshine, for example, is generally 8,000 footcandles during summer daylight hours. Moonlight, on the other hand, is .01 footcandles.

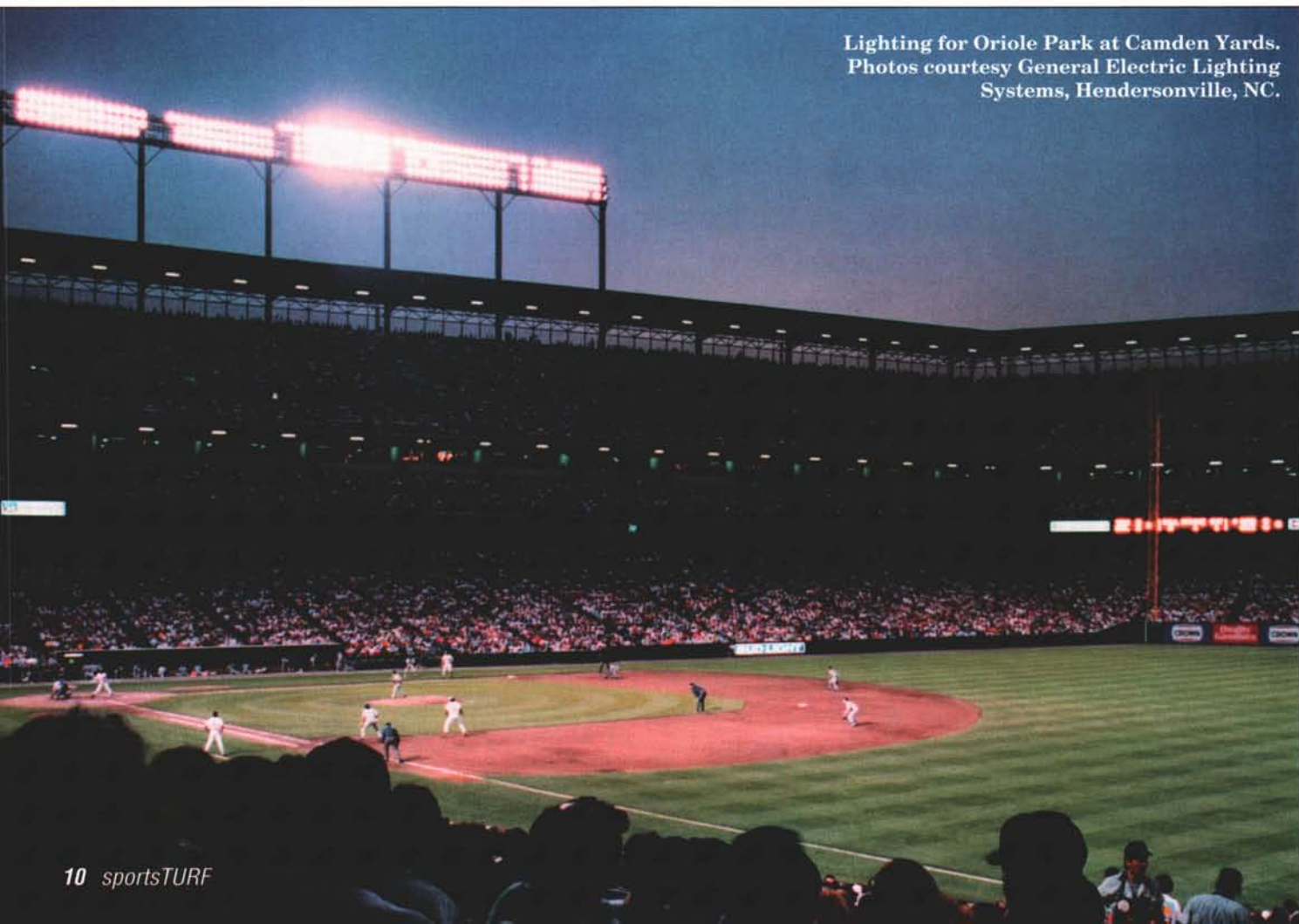
Acceptable lighting for most athlet-

ic events, from the standpoint of participants, is 30 footcandles. Footcandle levels greater than 30 are generally implemented to fulfill other requirements, such as:

- 500 footcandles for boxing. Certainly, this level of lighting is not necessary for the participants, but necessary for the spectators' requirements for viewing high-speed action.

- 200-300 footcandles for network television. This helps provide good color rendition for television transmission.

- 100 footcandles for large stadium



Lighting for Oriole Park at Camden Yards. Photos courtesy General Electric Lighting Systems, Hendersonville, NC.