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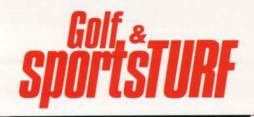
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JULY 1990

MAIN EVENTS

11 FERTIGATION: GETTING THE MOST OUT OF YOUR BUDGET AND IRRIGATION SYSTEM

If you are planning to upgrade your irrigation system, you should consider including a fertigation system. By injecting fertilizers into irrigation water, you can eliminate peaks and valleys in turf nutrition while easing labor, equipment, chemical, and storage costs. Many turf managers have found fertigation useful in stretching tight budgets to meet greater amounts of play and higher turf standards. Experts reveal that fertigation is the least likely of all nitrogen sources to leach and the best to prevent groundwater contamination.

18 AFRATION AND TOPDRESSING: APPLYING TECHNOLOGY TO REDUCE DISRUPTION

Aeration and topdressing are two of the most disruptive cultural practices in turf management. Manufacturers and contractors are working on ways to speed up or reduce this disruption. New technology combined with the development of diagnostic tools now enables turf managers to determine the frequency and timing of aeration and topdressing. As a result, they can better balance the disturbance with the benefits.

25 IRRIGATION DEPARTMENT RESTORES CONTROL AT USC

Rather than undertake a massive overhaul of its extensive irrigation system, the University of Southern California in Los Angeles created an irrigation department to develop and carry out a renovation program. By addressing the problems of water conservation and system performance, the irrigation department directed by Jim Peralta at USC has control over its long-term maintenance costs without sacrificing the quality of the campus landscape.

LINE-UP

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COVER: Oak Pointe Golf Course in Brighton, MI. Photo courtesy: Reinhold and Vidosh, Inc.

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FROM THE PUBLISHER

The challenge of the 21st century is upon us. What used to be a once in a while media story has turned into a full-fledged, on-going media event. Hardly a day goes by without some mention of the environment, clean air, the greenhouse effect, water abuses, etc.

In the landscape construction industry there is an old saying, "When the building trades sneeze, landscapers saying, when the building industry slows down

the landscape industry gets the worst of it.

The same could begin to happen in the institutional market. As more attention is paid to the environment, we could become the goat if we don't dot our I's and cross our

could become the goat II we don't dot our I s and cross our
T's. Because we are highly visible we should begin to take a leadership position in protecting
the environment Just a few weeks ago, I was watching the U.S. Open being played at Medinah Country was lined in Medinah II. What made this course challenging was that every fairway was lined. Just a rew weeks ago, I was watching the U.S. Open being played at medinan Country

Club in Medinah, IL. What made this course challenging was that every fairway was from

with trees. It seemed that there were thousands of trees all around. The overhead view from the environment.

Oup in Medinan, IL. What made this course challenging was that every fairway was lined with trees. It seemed that there were thousands of trees all around. The overhead view from the blimp was spectacular.

It dawned on me that a great opportunity exists here. We could have a win-win situation.

It dawned on me that a great opportunity exists here. We could have a win-win situation.

Period of the National Tree Trust Act of 1000 Here a side of 1000 Here. President Bush is asking Congress to approve the National Tree flanting some of these would like to see ten billion trees planted. We could do our share of planting some of the see ten billion trees planted. rresident dust is asking Congress to approve the National Tree Trust Act of 1990. He would like to see ten billion trees planted. We could do our share of planting some of these ten billion trees planted. We could do our share of planting some of the would like to see ten billion trees It would belo generate more oviden and give us cleaner air. It would belo generate more oviden and give us cleaner air. the blimp was spectacular.

would like to see ten billion trees planted, we could do our share of planting some of the ten billion trees. It would help generate more oxygen and give us cleaner air. It would have the billion trees. It would help generate more oxygen and give us cleaner fairware so I don't make the courses more challenging. Of course, as a duffer I need wider fairware so I don't ten pillion trees. It would neep generate more oxygen and give us cleaner air. It would also make the courses more challenging. Of course, as a duffer, I need wider fairways so I don't get stuck in the trees all the time It goes without saying that taking care of these trees would put a greater burden on a great way to let the world know that we are a great way to let the world know that we are

the superintendent in the future. But what a great way to let the world know that we are get stuck in the trees all the time.

The demand for new housing continues. Many municipalities have placed severe to develop new homesites these municipalities are strictions on builders. In order to develop new homesites these municipalities are restrictions on builders. In order to develop new homesites these municipalities are requiring that more space be dedicated to greenhalts narks at a What could have been a restrictions on builders. In order to develop new nomesites these municipalities are requiring that more space be dedicated to greenbelts, parks, etc. What could have been a detriment to the huilders is being used to their advantage. They are huilding new detriment to the huilders is being used to their advantage. requiring that more space be dedicated to greenbelts, parks, etc. What could have been a detriment to the builders is being used to their advantage. They are building new dolf course was built detriment to the builders is being used to their advantage. detriment to the bullacers is being used to their advantage. They are building new golf course was built courses, which satisfy the requirement for open space. A beautiful new golf course was built not too long ago in California and turned over to the local municipality. It is now a public not too long ago in California and turned over to the local municipality. courses, which sausty the requirement for open space. A peautiful new goil course was public not too long ago in California and turned over to the local municipality. It is now a public not too long ago in California and turned over to the local municipality. It is now a public not too long ago in California and turned over to the local municipality. It is now a public not too long ago in California and turned over to the local municipality. It is now a public not too long ago in California and turned over to the local municipality. doing our part! not too long ago in Camornia and turned over to the local municipality. It is now a public golf course with greens fees of \$75 per round. Not only does this golf course satisfy the need for green open enage it also generates income to the municipality.

The developer gained as well. He realized that the demand for homes around prices need for green open space, it also generates income to the municipality. ourse was strong. As you know, homes around golf courses are sold at premium prices.

Even non-dolfers appreciate the calm sevene mond of vact evenances of dreen areas and as course was strong. As you know, nomes around goil courses are sold at premium prices.

Even non-golfers appreciate the calm, serene mood of vast expanses of green areas and are

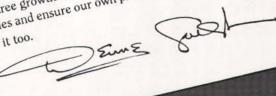
willing to pay for it. This enables the developers to build more golf course.

even non-goners appreciate the caim, serene mood of vast expanses of green areas and are willing to pay for it. This enables the developers to build more golf courses, plant them with many trees, and denate them fif they have to back to the municipalities. More golf courses create more jobs for our industry. It helps satisfy the demand of the many trees, and donate them (if they have to) back to the municipalities. people to have more recreational areas. It gives us the opportunity to meet the goal of ten hillion new trees (but let's plant them in the right place) and make a contribution to hillion new trees (but let's plant them in the right place) and make a contribution to hillion new trees (but let's plant them in the right place) and make a contribution to ending the hillion new trees (but let's plant them in the right place) and make a contribution to ending the hillion new trees (but let's plant them in the right place).

people to nave more recreational areas. It gives us the opportunity to meet the goal of ten billion new trees (but let's plant them in the right place) and make a contribution to ending the greenhouse effect We can set an environmentally sensitive example by using effluent and recycled water was set an environmentally sensitive example by using effluent and recycled water was set an environmentally sensitive example by using effluent and recycled water was set an environmentally sensitive example by using effluent and recycled water was set an environmentally sensitive example by using effluent and recycled water was set an environmentally sensitive example by using effluent and recycled water was set an environmentally sensitive example by using effluent and recycled water was set an environmentally sensitive example by using effluent and recycled water was set an environmentally sensitive example by using effluent and recycled water was set an environmentally sensitive example by using effluent and recycled water was set an environmentally sensitive example by using effluent and recycled water was set an environmentally sensitive example by using effluent and recycled water was set an environmentally sensitive example by using effluent and recycled water was set as a sensitive example water was set as a se

for irrigation whenever possible. We can implement sound water management practices and technologies such as turf and tree growth regulators. Such practices will improve the or irrigation whenever possible. We can implement sound water management practices will improve the and technologies, such as turf and tree growth regulators. Such practices will improve and technologies, such as turf and tree growth regulators. standard of living in our communities and ensure our own present and future employment. the greenhouse effect.

We can have our cake and eat it too.



SURVEY INDICATES ENVIRONMENTAL STANDARDIZATION NEEDED

In a recent survey conducted by the American Society of Golf Course Architects (ASGCA), 39 out of 40 firms reported that they had experienced difficulties in obtaining permits for golf course projects because of environmental concerns by local, state, or national agencies.

"This national survey vividly demonstrates the impact that environmental concerns have on the golf industry and the need for the industry to work with key agencies to develop mutually acceptable guidelines that will be interpreted uniformly throughout the country," said Dan Maples, ASGCA president.

Fifty-six percent of the firms surveyed cited wetlands as the primary problem they encountered during the permit process. Other areas of concern were habitat, nitrates and chemical contamination, groundwater protection, and pesticide usage.

The ASGCA survey also determined that new golf course projects have experienced the most delays because of objections by the Corp of Engineers. The Environmental Protection Agency, Department of Natural Resources, various environmental groups, local planning commissions, town and city

councils, wildlife organizations, and adjacent landowners were ranked behind the Corp of Engineers in terms of causing delays.

More than half of the architectural firms that responded said some of their new projects had been delayed from eight to 12 months by the permit process. One-fourth said hearings delayed their projects by three to six months, while 22.5 percent said that several of their projects had been delayed from 15 to 30 months.

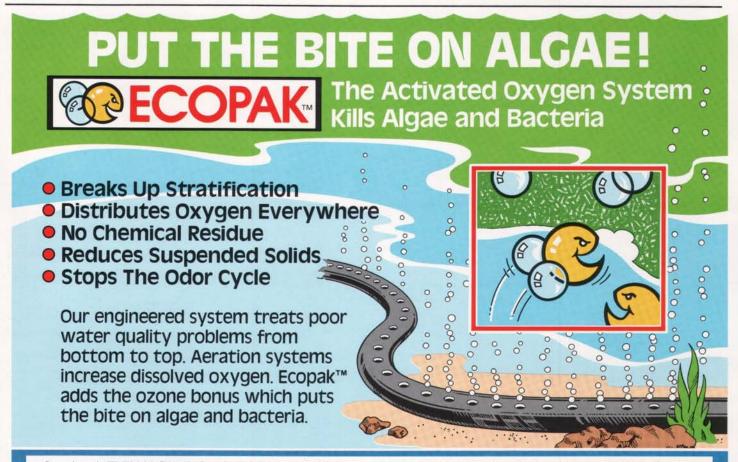
Delays represented far more than inconvenience to the firms and their clients. When asked to present actual case histories showing the costs of these delays, the architects cited additional costs ranging from \$10,000 to more than \$1 million. These changes came from additional financing, legal, and consultant fees, and from rerouting the project.

In general, respondents suggested that the golf industry develop a comprehensive informational program for agencies and interested environmental groups. Uniform interpretation guidelines should be worked out with national agencies, such as the Environmental Protection Agency and Corps of Engineers, which could then be used as parameters by local and state bodies, they said.

Maples pointed out that golf course architects are environmentalists by nature and training, and that nearly every ASGCA member has advised clients to back away from a project that could damage the environment. "However, we have not done a good job of explaining to regulatory agencies, local boards, and the general public how golf courses contribute to the quality of life," Maples said. "We must go one step further and work with the EPA and COE to develop guidelines that will help the architect prepare a plan that will be acceptable without a great deal of revision."

The key to that is having national standards on such key issues as wetland mitigation, Maples said. "We need to prepare good preliminary plans that are readily understandable to the laymen who sit on many of the local boards," he added. "We must become allies, not adversaries."

The ASGCA is sharing the results of its survey with other golf associations in hopes that a meeting can be set up in the near future with key regulatory agencies.



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THE FRONT OFFICE

OPINION PAGE

EASTERN LEAGUE SETS TRAINING PRECEDENT



ack of field consistency has been a lingering problem in the minor leagues for years. Before a player can make it to the Majors, he must first hone his skills on tight-budget municipal baseball diamonds in small cities across America. The record he establishes on these fields is what determines whether or not he'll play in the Big Leagues some day.

This baseball boot camp is loaded with pressure, months of living on the road, and tremendous competition. Inconsistent or poor fields can ruin a player's career before it has a chance to develop.

Not only do players have a great deal at stake, so do the owners of these teams, who invest hundreds of thousands of dollars trying to develop the baseball stars of the future. With Minor League expansion set for 1992, one year before the National League adds two more franchises, Eastern League owners have decided it is time to do something about the inconsistency of playing fields. In a recent seven-to-one vote, the owners required that all groundskeepers and general managers in the league attend a two-day field maintenance seminar this September in Harrisburg, PA.

The recent decision is a dream come true for Murray Cook, superintendent of West Palm Beach Stadium in West Palm Beach, FL. Cook, who has a degree in education from North Carolina Wesleyan in Rocky Mount, NC, has been trying for years to create a baseball groundskeepers school. He has worked on baseball diamonds since he was 14 years old and has renovated a number of Eastern League fields in the process. Today he is superintendent at West Palm Beach, the spring training site for the Atlanta Braves and the Montreal Expos, as well as the home stadium for the West Palm Beach Expos and the Tropics.

"The training institute is a feather in the League's cap," boasts Cook. "It has taken a leadership position. Charlie Eschbach [Eastern League president] and Scott Carter [president of the Harrisburg Senators] intend to set an example for the other 18 leagues to follow. Sal Artiaga [president of the National Association of Baseball Leagues] said that if the school works for the Eastern League, he might require the same type of school for the other leagues."

The institute will cover in depth such issues as field specifications, turf renovation, and mound and infield dirt preparation. It will also focus on business issues, including negotiating leases, working with Major League clubs, marketing, and sharing the cost of equipment and supplies. "The seminars will be custom-tailored to fit the needs of all eight teams," Cook promises. When they leave the meeting, all clubs will have their own day-to-day management program, as well as guidelines for achieving it.

During the first year, the institute will be limited to the Eastern League. However, Cook envisions a time in the near future when other leagues, or perhaps colleges and universities, can benefit from the program. "Realistically, minor league clubs can only take advantage of educational programs in their region," Cook admits. "Groundskeepers need information that is appropriate for their part of the country. As a result, training programs in the future will need to be regional in scope."

Golf & SportsTURF salutes the Eastern League and Murray Cook for setting a precedent in training. They are a bright spot in the industry. If you would like to learn more about the Eastern League institute, give Murray a call in Florida at (407) 471-5362. Let his enthusiasm rub off on you so that you, too, can take part in the growth of the sports turf industry.

Bruce P. Shoul

EVENTS

CALENDAR

JULY

29-31 International Lawn, Garden and Power Equipment Expo, Kentucky Fair and Exposition Center, Louisville, KY. Contact: Expo 90, P.O. Box 70465, Louisville, KY 40270, (800) 558-8767.

AUGUST

- 1 University of Georgia Turfgrass Field Day, Georgia Station, Griffin, GA. Contact: Georgia Turfgrass Association, 4565 S. Berkeley Lake Rd., Norcross, GA 30071, (404) 447-4985.
- **9** Rutgers Turfgrass Research Field Day, Turfcenter, Ryders Lane, Cook College, New Brunswick, NJ. Contact: Dr. Henry Indyk, Crop Science Dept., Cook College, New Brunswick, NJ 08903, (201) 932-9453.
- **9** Facilities Management Workshop, Ohio State University, Columbus, OH. Contact: PGMS, 10402 Ridgland Rd., Suite 4, Cockeysville, MD 21030, (301) 667-1833.
- **21** Facilities Management Workshop, College of the Holy Cross, Worcester, MA. Contact: PGMS, 10402 Ridgland Rd., Suite 4, Cockeysville, MD 21030, (301) 667-1833.

SEPTEMBER

4-6 Institute of Groundsmanship Sports Trade Exhibition, East of England Showground, Peterborough, UK. Contact: IOG, 19-23 Church St., Milton Keynes, Buckinghamshire, UK MK12 5LG; telephone Milton Keynes (0908) 311856.

17-20 44th Northwest Turfgrass Conference, Rippling River Resort, Welches, OR. Contact: Northwest Turfgrass Association, P.O. Box 1367, Olympia, WA 98507, (206) 754-0825.

18 Professional Turfgrass Field Day, Westchester Country Club, Rye, NY. Contact: Metropolitan Golf Course Superintendents Association, P.O. Box 396, Mamaroneck, NY 10543, (203) 329-8257.

18-19 Virginia Tech Turf Research Field Days, Turfgrass Research Center, Blacksburg, VA. Contact: J. R. Hall III, Virginia Cooperative Extension Service, 424 Smyth Hall, Blacksburg, VA 14061, (703) 231-9736.

Send announcements on your events two months in advance to editor, Golf & SportsTURF, P.O. Box 8420, Van Nuys, CA 91409. Fax: (818) 781-8517.