

Reference Library

Recently released professional literature



How to Buy a Bridge, Continental Manufacturing, 24 pages.

Explains the many options available when considering a new bridge design, commonly used bridge terms, types of projects most suited to prefabricated bridges, determining location and how to get started. Includes a form on design data

that can be mailed or faxed to the company for cost estimates.

Contact Continental Bridge, Route 5, Box 178, Alexandria, MN 56308-9014; phone 612-852-7500.

Catalog of Golf Course Accessories, Standard Golf, 40 pages full color.

Among the new products are American-made bunker rakes and tee towels made of rib-tex.

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DowElanco's Snapshot herbicide has received EPA registration for use on established landscaped ornamentals, ground covers, non-bearing

fruit and nut crops, non-bearing vineyards and nursery stock. The new preemergent herbicide is available in a dry flowable formulation as Snapshot 80 DF.

The new product provides up to eight months' control of 86 broadleaf and grassy weeds

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and can be applied directly on established, labeled ornamentals and can be applied to wet foliage.

Rootsinc., a Connecticut crop science company, has released two root growth enhancers and a natural wetting agent.

The growth enhancers — **ROOTS** and **ironROOTS** — are concentrated liquid biostimulants developed with scientists from the Yale University School of Forestry.

The product is a natural biostimulant containing peat humic substances, marine algae extracts, thiamine mononitrate and intermediate metabolites. It is formulated to promote root growth and stress tolerance in the establishment and transplanting of turf and ornamental

crops.

IronROOTS includes 5 percent chelated iron citrate and is formulated to promote stress tolerance, healthy color and fast recovery from seasonal stress damage in maintained turfgrass and ornamental plants.

NoburN Natural Wetting Agent and **Soil penetrant** is a steroid saponin extract from the desert yucca plant. Unlike synthetic wetting agents, **NoburN** does not have to be watered in after each application, and **Rootsinc** claims it will not burn or discolor leaf tissue when it is applied in hot or dry weather.

Since steroid saponins are natural plant fluids that are extracted only by pressure (not chemically), there is no danger of burning or groundwater contamination.

In a comparison study conducted by the University of Georgia on a hydrophobic putting green, **NoburN** achieved parity with 11 commercial chemicals in reducing hydrophobic conditions without causing any discoloration. Another test showed the wetting agent to be non-phytotoxic and completely compatible with pesticides.

Jacobsen has introduced two heavy-duty utility trucks, added two models to its lighter-weight Express line of utility trucks and introduced an aerator.

The heavy-duty trucks can haul 1,500 pounds and have a capacity of 19 cubic feet. One is powered by a 23.5 hp diesel engine and the other by a 20 hp gasoline engine.

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The **PT2448** aerator has a 48-inch path and offers a variety of tine sizes with an adjustable pattern from 1x2 to 5x2. Optional mini-tines aerate with a 1x1 pattern.

The **Fourth Annual Southern Grounds & Turf Maintenance Exhibition and Conference** will be Nov. 19-20 at the Myrtle Beach (S.C.) Convention Center.

The show is produced by the South Carolina Board for Technical and Comprehensive Education and sponsored by

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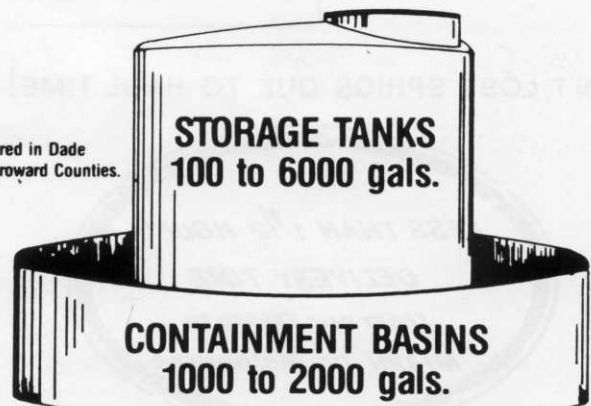
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the South Carolina Department of Parks and Recreation, Horry-Georgetown Technical College, and *Turf Magazine*.

For information, call 803-737-9355.

Harvard University Graduate School of Design will offer 41 continuing education courses and workshops in landscape architecture, architecture, management, real estate development and computer-aided design between June and August.

The courses will last from one to six days with fees ranging from \$250 to \$1,200.

For information, contact Office of Development and External Relations, GSD, Harvard University, 48 Quincy St., Cambridge, MA 02138; phone 617-495-4315.



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Fire ants' real sting has not yet been felt

About four years ago, I wrote an article that identified the mole cricket as the most serious pest of golf courses in Florida and much of the Southeast. But the imported red fire ant might soon change that assessment.

Both insects come from South America and are successful in the southern U.S. because of favorable climate and lack of natural predators and parasites. Both cause hundreds of millions of dollars worth of economic damage each year and both cause golf courses to spend money for their control,

although the total directed at mole crickets is substantially higher than that for fire ants. But pesticides applied for mole cricket control and other pests on golf courses can also suppress fire ant populations.

For practical considerations, the major difference between the two is that fire ants can sting you and possibly kill you. As many as 85,000 sting victims seek medical treatment for allergic reactions each year and 30 people died from stings last year. The fact that one of these fatalities allegedly occurred on a golf course in my area compounds the problem and magnifies the danger for the golf industry.

As expected in today's litigious society, the victim's family is seeking compensation from the golf course. Their lawyer has contacted superintendents in the area concerning their fire ant control programs so as to determine (I assume) whether or not the golf course in question was taking adequate control measures. If the plaintiffs are successful in this litigation and the golf course is found negligent and responsible for damages, think of the potential ramifications.

Who will determine what constitutes adequate control measures? What kind of liability will a club be forced to carry? Will the superintendent be personally liable for neglecting mandated procedures? How much more will a round of golf cost to satisfy one more regulation fueled by our society's quest for a no-fault, risk-free environment?

The fact is, one fire ant sting can kill you if you are one of the few highly allergic people. No control measure, no matter how thorough or expensive, will totally eradicate the target pest. Some will always survive, and re-infestation from nearby areas can occur very quickly. Clubs surrounded by open pastures infested with fire ants would be fighting losing battles. A fire ant queen is capable of flying as far as 15 miles to start a new colony. The risk of getting stung by a fire ant can be reduced, but not eliminated.

Attempts at eradication might have been the catalyst for the fire ant's remarkable evolutionary adaptation, which makes present control measures so difficult. Fire ants have only been in this country for about 40 years and already infest more than 400 million acres. There are places in Texas where nothing but fire ants can be found for miles in any direction. Widespread efforts to eradicate them with pesticides such as dieldrin, heptachlor, and mirex might have triggered an evolutionary response that causes them to produce multiple-queen colonies rather than the typical single-queen colony.

Just 10 years ago, a typically invested pasture averaged about 50 single-queen mounds per acre. Now the typical pasture has as many as 500 mounds per acre and 200-500 queens per mound. Individual mounds are no longer independent of or antagonistic towards each other, but are part of integrated "super colonies."

According to some experts, it is better to leave a few well-established colonies alone. By trying to wipe them out, you invite a massive re-infestation later.

The good news is that the U.S. Department of Agriculture spends \$5

Mark My Words



Mark Jarrell, CGCS

million annually on fire ant research and Texas about \$1.1 million. More than 8,000 chemicals have been screened for fire ant control. They have obviously had limited success and current research focuses more on promising biological, hormonal and genetic manipulation techniques.

With a nearly 40-year history of intense research dedicated to fire ant control, and its dismal record of success, the last thing the golf industry needs is a judicial decision mandating responsibility and protection of golfers from the sting of a fire ant.

EDITOR'S NOTE: Mark Jarrell wrote this column for the Jan. 19, 1991, issue of *Golfweek*, which has given us permission to reprint it.

Common sense prevailed in the recent ruling in West Palm Beach

when a jury declared that the PGA National Golf Club was not responsible for the death of a golfer bitten in 1988. The jury correctly noted that the club had attempted to get rid of the fire ants, but recognized that there is no sure-fire way to eliminate them completely.

This case underscores the need for all golf courses to keep accurate records of their pest control management programs, and it also points out the need for the continued education of the general public about the actual risks and benefits of chemical applications on golf courses.

The hazards caused by fire ants are not limited to golf courses. Home lawns, schoolyards, parks and other recreational facilities are also at risk for fire and infestation.

-JJ

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The Green Pages

A compendium of news and opinions about government, golf and the environment

EDITOR'S NOTE

Unless otherwise noted, items in this issue of The Green Pages were taken from GCSAA publications available to all GCSAA members and are reprinted with permission. For more information, contact the GCSAA Government Relations Department.

FGCSA committee strengthening agency ties

Tim Hiers, CGCS, chairman of the FGCSA Government Relations Committee, reports that the main emphasis of his committee right now is to establish a relationship and rapport with the various regulatory agencies.

Jeff Hayden, co-founder of the new Seven Rivers Chapter,

has been attending meetings of the Pesticide Review Council and others concerning endangered species in Tallahassee and Gainesville. He reports that one-time attendance is neither beneficial or informative. Regulation is a continual process that requires constant participation to be meaningful for our industry.

- JJ

EPA encourages development of safer pesticides

EPA's Office of Pesticide Programs once again stresses the introduction of "safer pesticides" in the four-year strategy it recently released. The safe pesticide strategy suggests the establishment of two separate tracks for processing chemical registrations.

Safer pesticides would be allowed on the "fast track," thus insuring quicker introduction to the user market, while more hazardous pesticides would have to remain on the slower registration track.

The safe pesticide strategy also seeks to increase the availability of information and public awareness concerning pesticide risks, the effectiveness

of pesticide management programs, and the availability of options for pest control.

EPA amends UST technical requirements

The deadline for UST owners and operators with pressurized piping systems to install automatic line leak detectors has been extended to Sept. 22.

The deadline extension applies only to the installation (on new or existing underground pressurized piping systems) of automatic line leak detectors that meet the minimum performance requirements.

Container study findings to be released soon

Final revisions are being made to the soon-to-be-released pesticide container study, according to Nancy Fitz of EPA's Office of Pesticide Programs.

Draft regulations, which will soon follow as part of the 1988 reauthorization of FIFRA, will include significant changes in the amount of residual product that can be left in refillable and non-refillable containers.

EPA will encourage the use of refillable containers, but call for a structural integrity test and performance standard of these refillable containers to avoid cross-contamination of product and secondary protection against releases. The most desirable containers are, in order of EPA preference, water-soluble packaging and refillables, then non-refillable, recyclable containers; and lastly, non-recyclable containers.

The draft regulations also require that:

- a closed transfer system be used for non-refillable containers.
- performance standards be established for dispersion capability while pouring from the container.
- containers be made of recyclable materials.
- residue removal standards be supplied by the registrant on the label. At this time, the standard for rigid containers holding dilutable pesticides is a 99.9999 percent rate of residue removal.

High court hears FIFRA pre-emption case

The U.S. Supreme Court has agreed to decide whether federal laws regulating pesticides prevent cities from making their own rules.

Last spring, the Wisconsin Supreme Court ruled that the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) pre-empts a 1985 ordinance adopted by the town of Casey, Wis. The Casey ordinance requires a town permit to use pesticides on public lands or to perform aerial pesticide applications on private lands.

The appeal argues that the rule is legal because of the state's authority to work through local governments under the Safe Drinking Water Act, and that FIFRA pre-emption would hinder local governments in protecting groundwater recharge areas from pesticide pollution.

The federal appellate courts have ruled that FIFRA pre-empts local pesticide rules, while state supreme court rulings in Maine and California said that FIFRA does not preempt local regulation.

Few legal authorities believe that the Supreme Court will

Environment a stagnant issue

Let's be brutally honest.

I'm getting tired of hearing about golf and the environment. I'm bored with speakers and studies that tap golf as a friend of the environment and not an enemy, out to pollute the air we breathe and the water we drink.

That is not to say, however, that I'm anti-golf or anti-environment. The belief here is that golf is indeed a friend of the environment and that most of the so-called environmentalists don't believe the facts... or don't want to believe the facts.

What I'm getting tired of hearing and seeing is the golf industry going around in circles. Superintendent seminars and meetings of the American Society of Golf Course Architects recently in Las Vegas were good examples of what is becoming a vicious cycle.

Nobody is telling anybody anything

they don't know, at least regarding golf and the environment...

...The case was basically the same at Golf Summit this past summer in Palm Desert, Calif. The National Golf Foundation, which sponsored the Summit, presented an encyclopedia of facts about the golf industry, but to people who already knew the evidence.

In most cases, golf's message on the environment and other issues is simply not getting to the proper people...

...The golf industry doesn't have to apologize for its environmental record or its efforts in designing and building courses that protect such things as wetlands and wildlife preserves.

The industry, particularly organizations such as the architects' Society, GCSAA and the USGA have done a fine job of compiling information concerning golf and the environment.

That was Step 1.

The next step is to get that information

to the public and government agencies that make the environmental rules and laws.

A lobby for the industry as a whole? Possibly. Associations such as the Florida Golf Council and Arizona Golf Association are trying to make a difference within their respective states.

The industry needs one collective voice, which doesn't necessarily mean it needs a lobby. Industry leaders, architects, superintendents, builders, owners, and others can work as a lobby, speaking to legislators and regulators on behalf of golf. In that respect, they're much more credible than a lobby.

But most of all, the industry needs to work as hard at getting its message out as compiling ammunition the message contains. It doesn't do anybody any good to continue going in circles.

-Steve Pike, business editor of Golfweek. Excerpted from a March 2 editorial.

weaken the doctrine of federal pre-emption.

Senate schedules hearing on pesticide notification

A Senate hearing concerning a notification system for pesticide use will be held in April.

The Senate Subcommittee on Toxic Substances, Environmental Oversight, Research and Development, which last year heard testimony on lawn care chemicals from GCSAA Vice President William R. Roberts, CGCS, is responsible for planning the hearing.

It is believed that Senator Reid (D-Nev.), subcommittee chairman, and Sen. Lieberman (D-Conn.) both favor the development of a national notification

system to inform chemically sensitive people before pesticide applications. Connecticut recently imposed a similar system.

GCSAA will be seeking comments about this proposed notification system from its network of government relations liaisons. The association also plans to participate in the hearing.

RCRA, OSHA set penalty criteria

New penalty formulas for environmental violations and worker safety cases are expected to improve punishment effectiveness and consistency.

In the past, OSHA and EPA — under the Resource Conservation and Recovery Act — issued fines on a violation-by-violation basis. Recently, both

agencies re-evaluated their systems and set up formulas for determining penalty amounts.

EPA realized that some companies had been saving money by paying the fines rather than complying with RCRA. Because of these new policies, stronger penalties will probably be issued and less negotiating will occur.

EPA, OSHA will conduct joint inspections

EPA and OSHA have announced that they will combine inspection efforts to enforce national workplace and environmental statutes more effectively.

Even though EPA inspectors will not perform OSHA inspections, they will refer worker

health and safety issues to OSHA.

The agencies are developing a 1991 fiscal-year workplan for the joint inspection activities. The likely result will be more routine OSHA citations.

EPA toughens with more investigators

Amidst the budget cuts and imposition of higher taxes, the 101st Congress passed legislation to increase the number of EPA criminal investigators.

The Pollution Prosecution Act of 1990 directs the agency to increase, in steps, the number of investigators to total at least 200 by Oct. 1, 1995. This new legislation is designed to increase inspections — with a particular focus on small business violations.

Never have so many owed so much to so few. Winston Churchill's famous World War II quote still rings true today as superintendents across the nation wage a battle to demonstrate the environmental and economic benefits of golf and to showcase the multiple skills of the professional superintendent. Individuals in every local, state, and national association deserve recognition for their time and effort.

Is someone else fighting your battles?

These people have been heard in the halls of Congress, at local water management districts and in town council meetings. They have served on committees, as officers and directors of associations and have led the support and defense of our industry with energy and enthusiasm year after year.

Just as our nation has rallied its support for our troops in the recent Persian Gulf war, the golf community must rally its support for those who lead us in the growth and development of turf management.

Just as American, European and Arabic forces forged a successful coalition for victory, the golf community must participate in coalitions like the FGCSA, the Florida Turfgrass Association, the Florida Golf Council, and the newly formed Coalition for Responsible Pesticide Regulation.

Admittedly united action is sometimes difficult because of the different agendas of private, resort, development and municipal golf facilities. But it is not impossible.

There are approximately 1,000 golf courses in the state. About 680 superintendent and assistant superintendents are members of the FGCSA. Probably fewer than 100 members are actively engaged in any form of activity which is helping guide us through these murky days of increased regulation and negative publicity. And yet, all members of

the golf community are reaping the spoils of the hard-fought victories won by the dedicated few.

They need your support!

Every golf course that is able to irrigate under reasonable regulations written with the input from superintendents, every superintendent who can continue to apply chemicals and fertilizers tested and approved because of research funds raised by superintendents, and every golfer or person who derives his pleasure or livelihood from golf, owes a debt to those who continue to protect and serve our industry.

Those who are operating in the golf industry without paying that debt are undermining the future of golf.

By refusing to join associations, pay dues, attend meetings, donate funds for education and research, they are contributing to the frustration and burnout of those who have sought to preserve for others the right to operate profitably.

If every one of the 1,000 golf courses budgeted a reasonable amount for dues and research as a line-item expense and paid that money to the FGCSA, the FTGA or the Florida Golf Council, we could make significant progress in the ongoing business of turf management and golf course operations.

We are on the brink of a new era in the golf industry. An era in which environmental protection, water resource conservation and economic considerations are shaping the way we continue to conduct our complex business.

Responsible members of the golf community will invest the time and money necessary to become part of the solution. They will reinforce the few who have served so well for so long. Without replacements and reinforcements for our war-weary leaders, our pro-active attacks and our data-based defenses may lose their initiative and face crippling defeats.

We need all of you for a unified voice and a unified victory! Call 407-692-9349 for information on how you can help to sustain the growth and development of golf.

Green Side Up



Joel D. Jackson

Joel D. Jackson, CGCS

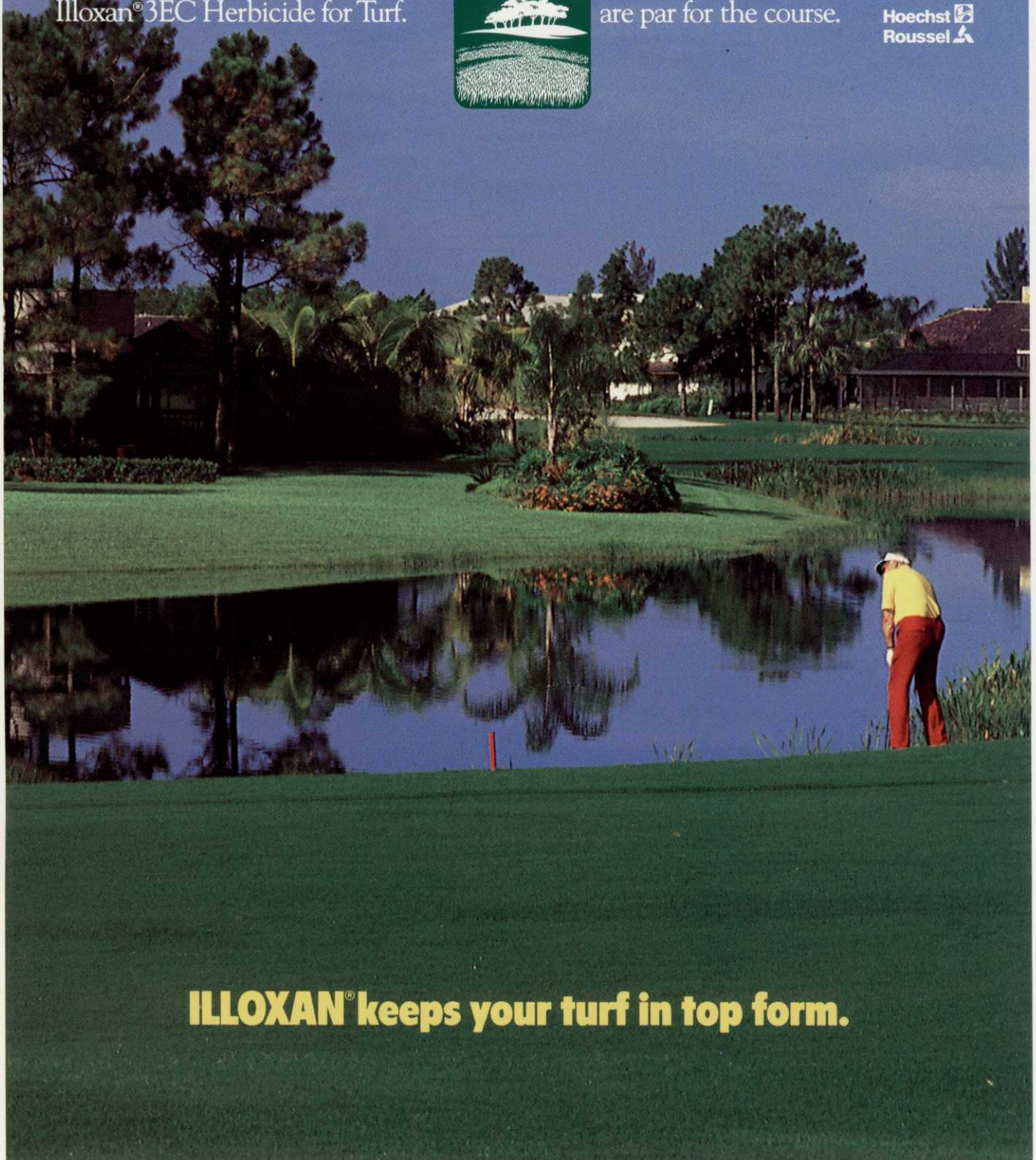
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