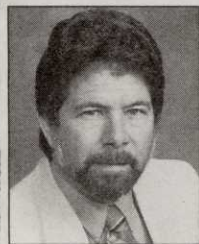


BRIEFS



N.J. TURF ASSN. HONORS HURLEY

ATLANTIC CITY, N.J. — The New Jersey Turfgrass Association presented Dr. Richard Hurley the 1999 NJTA Hall of Fame Award during the New Jersey Turf Expo general session here in December.



Dr. Richard Hurley

The award is given to a person in recognition of a continuing lifetime commitment of dedication, service and achievements contributing to the advancement of

the turf industry in the state. The business director for AgriBioTech, Inc.'s Professional Turf Unit, is a past president of the NJTA and has been involved in breeding projects with Rutgers University, the University of Rhode Island and Texas A&M.

N.Y. TURF ASSN. CITES VILLANI

SYRACUSE, N.Y. — The New York State Turfgrass Association presented its Citation of Merit Award to Dr. Michael Villani of Cornell University during the organization's Turf and Grounds Expo here. Dr. Villani has served the turf industry in New York since 1984, providing leadership in scarab grub research, insect management and environmentally sound practices for pest management. He has collaborated on two important entomology references, The ESA Handbook on Turfgrass Insect Pests and Turfgrass Insects of the United States and Canada.

WILSHIRE NAMED TO FLA. BOARD

LAKELAND, Fla. — Roy Wilshire, superintendent of Grasslands Golf & Country Club Course at Oakbridge here, has been named to the board of directors of the Florida Turfgrass Association (FTA). Wilshire, who took over responsibility for golf course planning, stewardship and maintenance in 1993 at Grasslands G&CC, has more than 18 years experience in golf course stewardship and maintenance.

NYSTA ELECTS OFFICERS

SYRACUSE, N.Y. — The New York State Turfgrass Association (NYSTA) has elected Joseph M. Hahn as president of a new board for the Year 2000. The superintendent at Country Club of Rochester, Hahn succeeded Anthony Peca Jr. of Batavia Turf at the annual meeting. He is joined by Vice President John Rizza of Turf Partners, Inc., and Secretary/Treasurer Steve Griffen, owner of Saratoga Sod Farm.

Bug off!

Beyond pesticides: Mosquito control goes high-tech

By ANDREW OVERBECK

When it comes to controlling mosquitoes and other biting insects, common tools such as pesticides and electric zappers may soon become a thing of the past. Thanks to cooperative research between the U.S. Department of Agriculture and two New England-based biotech companies, the latest mosquito abatement technology is now available.

American Biophysics, based in East Greenwich, R.I., launched the Mosquito Magnet in September 1998 and BioSensory of Willimantic, Conn., will release its Dragonfly model this month.

While the science behind the two products is complicated, the concept is simple. Both use carbon dioxide and an octenol lure to mimic the respiration of mammals and attract mosquitoes to the trap where they are killed and collected. However, the two machines use different luring and killing techniques and have different sources of CO₂.

American Biophysics manufactures mosquito abatement equipment for scientists and entomologists who collect live insects for study. The company's professional line of equipment uses dry ice or pure CO₂, two items that present some difficulties in mass production.

"In order to expand the technology and the market, we had to develop a device that used a readily available source of inexpensive fuel," said Karen Salvatore, sales director for American Biophysics. "We invented a catalytic converter that

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The Mosquito Magnet, which is about the size of a barbecue grill, converts propane to CO₂ to attract and trap biting insects.

Some myths debunked concerning blue-rye mixes

By DR. ERIC K. NELSON

Combining Kentucky bluegrass and perennial ryegrass can provide a versatile, high-performance turfgrass for golf course tees, fairways and roughs in cool-season grass areas, proving to be a quick-establishing, persistent, resilient and versatile playing surface.



Relative size of Kentucky bluegrass and perennial ryegrass after six weeks.

This statement is more true now than ever with recent releases of several new low-mow tolerant Kentucky bluegrasses. Kentucky bluegrass and perennial ryegrass have complementary characteristics, where the features and benefits of one can overcome the potential disadvantages of the other.

The key to taking advantage of both species in turf is to get them established in a balanced stand. There are many conflicting theories concerning the proper way to uniformly establish these species together. Some of the techniques are based upon research, experience and good agronomics. Others are based on hypotheses and conjecture.

However, there is more than one proper way to get the job done. Factors including species ratio in the seed mixture, seeding rate, seedling management, es-

tablishment timing and the immediate influence of Mother Nature on plant survival can all affect the results.

My general recommendation for taking advantage of features and benefits of both species in a balanced stand is to sow a mixture consisting of 80 percent (by

Continued on page 14



New low-mow Kentucky bluegrass plus perennial ryegrass excel on tees, fairways and roughs.

GOLF AND THE ENVIRONMENT

AI develops Environmental Audit

By JEAN MACKAY

Talk to golf course superintendents and you discover that most consider themselves stewards of the environment. After all, they work outdoors amidst the natural beauty of water, grass, trees and wildlife. But how can superintendents and course managers be sure they're not just touting environmental stewardship, while in actual practice, hitting a double bogey? How do they know whether management practices are really on par with widely accepted standards for environmental performance?

Now, an effective new tool is available

to help superintendents and club managers do just that. Audubon International has developed an Environmental Performance Audit to help superintendents, club managers and others rate their environmental performance.

The Environmental Performance Audit is a self-assessment or evaluation that uses environmental performance indicators, or best management practices, to measure their work. The audit is a simple, inexpensive means to help superintendents and club managers evaluate current management practices that safeguard

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Barber forms Blue Ridge

By MARK LESLIE

GREENVILLE, S.C. — He was a golf course superintendent, then a college professor and researcher, then an executive with two course management companies, at one time overseeing 44 courses in 17 states. Now Dr. Joel F. Barber has formed Blue Ridge Golf "to pro



Dr. Joel Barber

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Bug off!

Continued from page 13

can change propane gas into CO₂ at just the right temperature and humidity." The unit, which runs constantly, uses the same propane tanks as a barbecue grill and needs to be changed every three weeks.

Once attracted to the CO₂ and octenol, insects are captured by a counter flow.

"There is a tube that releases the CO₂ and then above it is another wider tube that is a vacuum that sucks them in to a

collection net," said Salvatore. "When mosquitoes approach the host and don't find what they are looking for, they will fly up." The counter flow captures the mosquitoes and deposits them into a net where they die of dehydration. Power for the vacuum and CO₂ fan is provided by the catalytic converter. The collection net needs to be emptied every three weeks.

According to Salvatore, the machine covers an acre effectively and begins to collapse the mosquito population within six to eight weeks.

ANOTHER METHOD

Using computer modeling and various

combinations of attractants, BioSensory has taken a different approach with the technology.

"We designed the Dragonfly to look like the blood host preferred by the mosquito of the Southeast," said company President Jim Nolen. The machine uses three attractants, puffs of pure CO₂ to replicate respiration, an octenol lure so it smells like a mammal and a thermal lure that, under infrared, looks like veins under skin.

"We have found that mosquitoes are actually programmed to fly from puff to puff," said Nolen. "The Dragonfly has

proven to have 98-percent accuracy."

When mosquitoes try to land on the Dragonfly, they pass through an electrostatic panel and then fall into a collection tray at the bottom of the unit. However, this necessitates an external power source. The 24-volt unit can be plugged into in-ground low-power lines.

Golf courses that are using the new technology have been impressed and, as a result, are now using less pesticides.

Lee Van Valkenburg, director of golf course maintenance at Ocean Reef Club in Key Largo, Fla., has eight Mosquito Magnets on his property and an additional 40 to 50 on homeowners' lots. "In a certain area, they will trap out all the biting females," said Van Valkenburg.

"We are getting overall property benefit, which translates into a tremendous benefit for the environment. We are using about 40 percent less pesticides than last year," he added.

Jack Nunges, superintendent at Oyster Harbors Club in Osterville, Mass., has seen a similar benefit and has saved more than \$2,000 on pesticide applications. "It has been picking up the mosquitoes and no-see-ums by the ton," said Nunges.

However, neither machine will work unless it is positioned properly. "You have to position it between you and where the pest is coming from, or they'll bite the heck out you," said Van Valkenburg, who rues the task of changing the propane tanks and the collection nets.

Nolen recommends that the Dragonfly be positioned a minimum of 30 feet away from the area that needs protection. "They can sense it 100 yards away," he said. "But they can't see you until they are 30 feet away; that is their visual range."

BioSensory also manufactures the Mosquito 'Cognito' that offers a two-pronged approach to mosquito control. "The Mosquito 'Cognito' puts out an inhibitor that blocks the mosquito's ability to smell," said Nolen. "When put in the area that is being protected, it can cut landings by up to 80 percent."

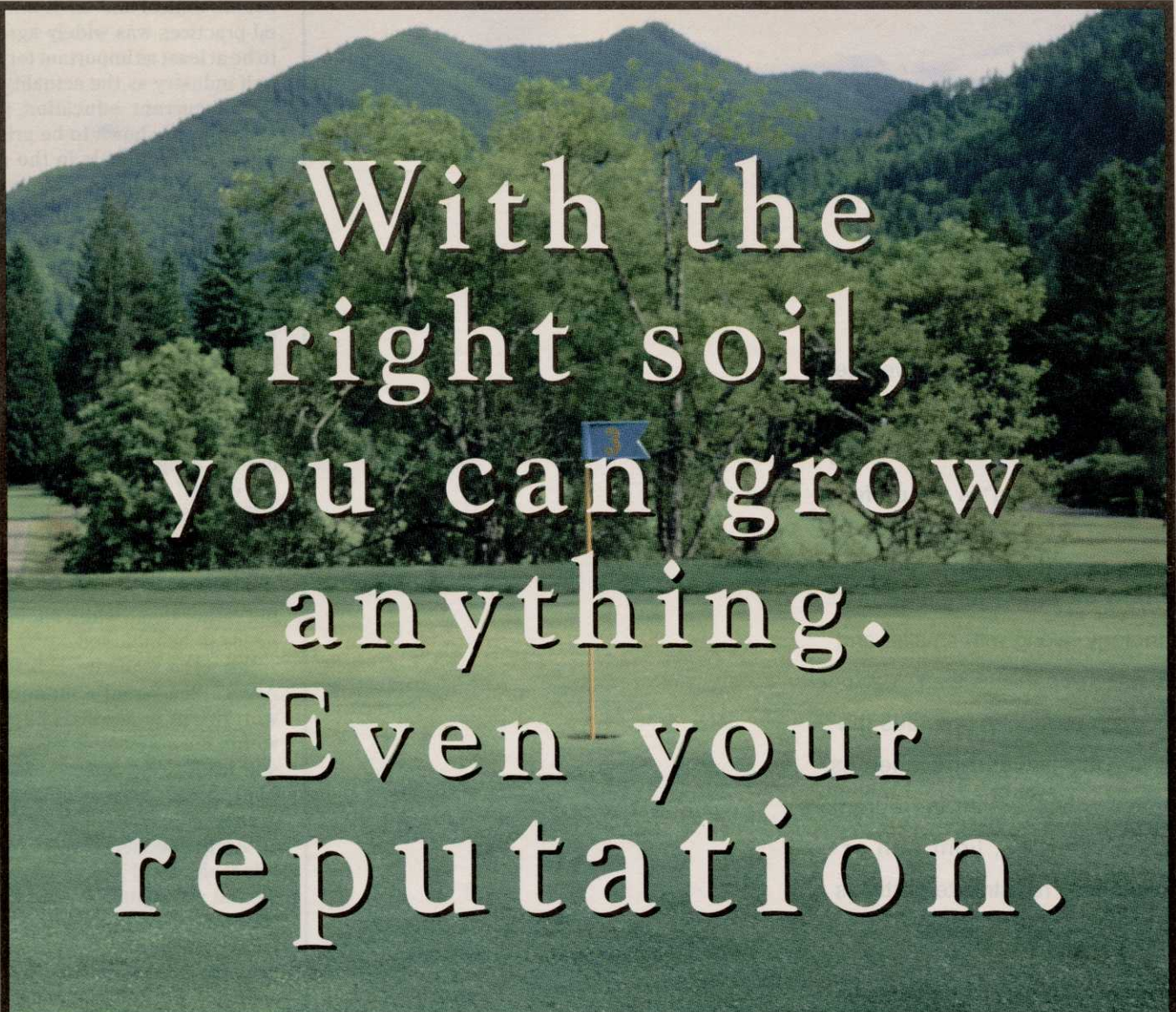
The Mosquito Magnet costs \$954. The propane tanks and octenol lures, which have to be changed every three weeks, cost \$10-\$12 and \$5, respectively. American Biophysics currently sells direct through telephone and internet sales, but is working on new distribution agreements with propane dealers.

The Dragonfly will be available starting this month, mostly through professional pest controllers, and will likely be leased for around \$20 a month. The company has signed on with Praxair to change, service and deliver the CO₂ tanks.

The Mosquito 'Cognito' will cost \$20 and will be available this spring at retail outlets.



The Dragonfly uses puffs of CO₂ to replicate the respiration of a small mammal to attract and kill biting insects.



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