

Atlanta Athletic Club reports success with new sterilization method

DULUTH, Ga. — Even a great golf course needs a makeover once in awhile. That's what Atlanta Athletic Club officials decided in 1994, when they took the plunge to bring the greens of The Highlands, built in 1968 with 1968 technology, into the present.

"We needed to replace the Penncross bentgrass with the more heat-tolerant Crenshaw," said superintendent Robert Waller.

But the task of updating The Highlands, host to the 1976 U.S. Open and the 1981 PGA Championship, was far more than putting in a dense, upright-growing grass species that could withstand the Atlanta summers. Golf course architect Rees Jones was brought in to design the new greens, culminating in a complete remodeling and rebuilding of the entire green complexes, from the putting surfaces to 50 yards out into the fairways. Calgolf of Montclair, N.J., handled the remodel project.

The new greens also benefited from 1990s construction technology, including a new technique that simplified the fumigation process and trimmed a full week off the time it traditionally takes to get a green seeded and ready to go, Waller said.

"Time was absolutely important to us," he said, "and this process sped up, by seven days, the time from a green being shaped to being seeded."

Atlanta AC contracted with Trans-American Soil Blenders Inc. of Lubbock, Texas, to blend a mix of 83 percent sand, 15 percent Irish peat moss and 2 percent Profile soil amendment, plus lime and a minor nutrient package for the greens. The new twist was the way the greensmix was sterilized: with the addition during blending, before construction, of Basamid granular soil fumigant in a process developed by TransAmerican and the golf services advisers of BASF Agricultural Products.

BASF manufactures Basamid, a non-restricted-use granular formulation that doesn't activate until mixed with organic material and sand. Once mixed with a homogenous mix of sand and peat, or other organic matter that has been air-fluffed or air-shredded for uniformity, the granules are converted into active substances that diffuse through the greensmix as a gas to eliminate germinating weed seeds, parasitic nematodes and soil-borne diseases.

According to the protocol established by BASF and TransAmerican, Basamid is added to the soil mix at a rate of 7 to 10 ounces per ton of greensmix about six weeks before use in the green cavity to allow time for proper fumigation and aeration, said Troy McNeill, president of TransAmerican. A germination test should be run on the mix to ensure that no residue of the fumigant remains before putting the



The 9th hole on The Highlands course at Atlanta Athletic Club after its greens renovation.

mix into the greens, he said.

"As soon as the greensmix goes into the shell, it's ready to seed," Waller said. This is where the time- and labor-saving occurs versus fumigating the greensmix after green construction. "With the old way, once you had the perfect green just as you wanted it, you had to tear it up and just about start over. With Basamid, we don't have to do the work twice."

During the remodeling, the entire green complexes were rebuilt on nine holes at a time in the summers of 1994 and 1995. "The greens turned out great," Waller said. "We were mowing them at nine days, with no

weed or disease problems, then or later."

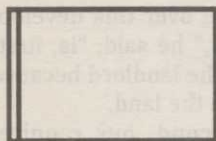
"What is good is, now we have another option that works as well, if not better, than the old technique," Waller said, referring to methyl bromide, which will not be allowed sometime in the future.

McNeill likes that Basamid is a non-restricted non-ozone-depleting product that helps him deliver a complete greensmix that produces a quality green.

Waller acknowledged that some people may choose not to sterilize their greensmix at all, if they know they have clean sand from a known source and clean seed. But

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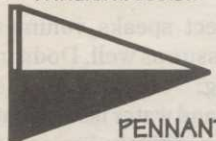
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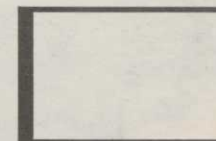
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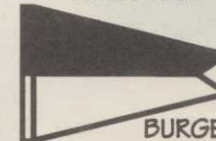
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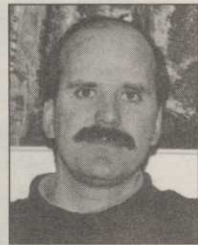
- Cal Roth, director of golf course maintenance for the PGA Tour's 16 Tournament Players Clubs, speaking on "the perfect maintenance complex." Roth and his superintendents have designed a sort of template that fits all needs and can be configured to fit any site.

- Ray Davies, regional agronomist for CourseCo Inc. in California and former president of the California Golf Course Superintendents Association, who will tell how to turn "a pain" into "a gain" by working in a positive way with OSHA regulations. He will share numerous opportunities to improve a maintenance operation while at the same time keeping government regulators happy.



Ray Davies

- Kevin Ross, director of golf course management at Country Club of the Rockies in Edwards, Colo., speaking on gizmos, gadgets and inventions that can make life a whole lot easier.



Kevin Ross

- Bob Brame, regional director of the U.S. Golf Association North-Central Region, who will draw on his latest experiences after the unique challenges of the summer to tell superintendents how to best battle the problems at their courses.



Bob Brame

- Terry Buchen, a Master Greenkeeper and president of Terry Buchen Golf Agronomy International, addressing the latest and best methods of maintaining bunkers and improving their drainage.



Terry Buchen

Meanwhile, the latest in the technology of "mapping" a golf course will be presented by Larry Rodgers, president of Larry Rodgers Design Group in Lake-wood, Colo.

Always at the forefront of technological advances that can be

applied to golf course irrigation and maintenance, Rodgers will discuss mapping a course quickly through the new marriage of Global Positioning Surveys and Geographical Information Systems technologies. He will demonstrate how the technology can be manipulated into

a Spatial Data Information system for use in irrigation central control, chemical and fertilization applications and robotics maintenance equipment.

The half-day seminar on biological controls will be led by Cornell's Nelson, considered a foremost researcher in this field

in the world.

He will be joined by Dr. Janet Anderson, director of the Biopesticides and Pollution Prevention Division of the federal Environmental Protection Agency, and Dan Dinelli, superintendent at North Shore Country Club in Glenview, Ill., who has been a part of several studies and field-research projects pertaining to various biological controls, including the BioJect system.

Atlanta AC

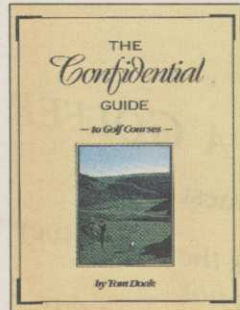
Continued from previous page even in that situation, Waller said he would sterilize to remove the risk of disease, weeds or other pests in new greens. "We paid more than \$2.5 million for the total renovation," he said. Pre-construction blending and sterilization "was a nice, inexpensive insurance policy."

GOLF COURSE NEWS BOOKSHELF

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By Tom Dook

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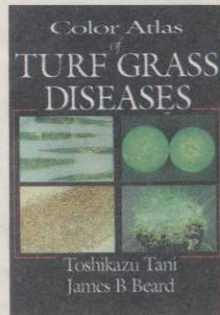
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By Dr. Toshikazu Tani

Contributing Author, Dr. James B. Beard

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Toshikazu Tani
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scope. This book will likely become the standard color-guide to disease diagnosis and pathogen identification for golf course superintendents and turfgrass practitioners. No other book contains as many color photographs of this detail and quality. Helpful maps are included to assist in disease identification by providing geographical locations where each disease/pathogen is likely to occur. A unique feature of this easy-to-use field guide is that it also provides color photos of step-by-step guidance on diagnostic techniques for laboratory analysis which can be used by practitioners.

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Edward Pira

the reader through every phase of an irrigation program. Turfgrass managers and golf course superintendents will refer to this handy book often to plan effective irrigation systems, ensure appropriate capacity, easy installation, and practical operation and maintenance.

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By Geoff Shackelford

The creator of Riviera and Los Angeles country clubs and author of the classic book, *Golf Course Architecture in America, Its Strategy and Construction*, George Thomas has deeply affected the golf industry even since his death in 1932. Thomas worked on single projects with Donald Ross and A.W. Tillinghast, learned from friends Hugh Wilson and George Crump, and designed more than two dozen courses on his own. At the same time he was recognized worldwide for his books about and breeding of roses, his first love. Call him brilliant, or enigmatic, but in his last years his work was on a book about Pacific game fish. Shackelford reveals the man behind the work.

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By Dr. Keith Karnok

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