USGA adds to research kitty: $1.5m

By MARK LESLIE

PAR HILLS, N.J. — Ada-
man on taking its environ-
mental research to the next
level, both scientifically and
practically, the United States
Golf Association (USGA) is funding another
$1.5 million for research
over the next three years.

Having spent $3.2 million
on environmental research
projects from 1991-93, USGA officials have de-
cided to perform further
studies on some projects
and add a new practical
angle, investigating and re-
porting Best Management
Practices for golf course
superintendents to use in
everyday work.

Saying the USGA and
to help reduce environ-
mental impacts of
course maintenance, Green Section Research
Director Dr. Michael Kenna said: “In
instances where a superin-
tendent has used proper
fertilization, mowing
heights, irrigation and all
other possible practices but
still has a disease, insect or
weed infestation, what tech-
niques can be follow that

Suichang bringing endophyte
strains to bents and blues

By PETER BLAIS

A Jacklin Seed Co. re-
searcher is busy trying to
develop endophyte-contain-
ing strains of Kentucky
bluegrass and bentgrass,
breakthroughs that could
severely reduce the need for herbicide and fun-
gicide treatments.

Endophytic fungi are
common in tall fescue, pe-
rennial ryegrass and fine
fescues. Endophytes make
turf more resistant to in-
spectors and such diseases as
dollar spot and summer
patch, according to
Suichang Sun, who recently
received a master’s degree in
turfgrass breeding from
Rutgers University.

Endophytes either occur
naturally or can be artifi-
cially inoculated. But they
have not been found or suc-
cessfully inoculated into two
of the most widely used
cold-season turfgrasses,

BIG DOINGS IN BIG SKY COUNTRY

A site behind the 5th green sits as a sentinel to its past, while a 568-yard monster looms foreboding
in its future. But for now, Bridger Creek Golf Course in Bozeman, Mont., stands as a public nine-
hole facility that makes proud its operator — Great Northern Golf Co. See story page 36.

Jones II: ‘I think public golf is the future’

Architect to keynote
day two at Expo

By MARK LESLIE

ORLANDO — World-re-
nowned golf course archi-
tect Robert Trent Jones Jr.
will join Arnold Palmer as a
keynote speaker at Golf
Course Expo, the nation’s
premier event for public-ac-
cess golf courses planned
here, Nov. 11-12.

Jones, of the legendary
golf course design family,
will talk at 9 a.m. Saturday,
Nov. 12, and sign his book,
“Golf by Design: How To
Lower Your Score by Read-
ing the Features of a Golf
Course,” released this year
by Little, Brown.

Golf Course Expo, spon-
sored by Golf Course
News, is the only trade show
and educational conference

GOLF COURSE EXPO

ORANGE COUNTY CONVENTION CENTER

ORLANDO, FLORIDA

NOVEMBER 11-12, 1994

A NATIONAL EXHIBITION AND CONFERENCE FOR OWNERS.
SUPERINTENDENTS, MANAGERS, AND DEVELOPERS OF
PUBLIC-ACCESS GOLF FACILITIES

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Jones II: ‘I think public golf is the future’

Robert Trent Jones Jr.

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Suichang bringing endophyte
strains to bents and blues

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USGA continues research

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will minimize the impact of a pesticide?

"To an uninformed person, the use of some products is like putting a gun in their hands. For 99 percent of products we have found no negative effects and this would be a waste of research effort. But for a few, you can run into situations that can cause a problem if you don't proceed correctly. We want to focus in on that 1 percent where there may be a problem."

The Green Section and university researchers will "take some basic studies and put the information into more real-world situations and have a positive story to tell on how to use a product and not have any environmental impact," Kenna said. "This is stuff not for scientific journals but for superintendents."

While the new funding will include two or three projects dealing with Best Management Practices, the remainder will support further investigation of pesticide-nutrient failure and attempts to improve models to determine pesticide fate, Kenna said.

"The American public is totally ignorant about pesticides," he said. "They do not understand the concept of quantification of risk."

To most people, the mention of any trace of a pesticide being discovered means danger even though pesticides are found naturally, he said, adding people do not know:

• The mere presence of a pesticide does not mean ill effects.
• The dose makes the poison.
• Chemicals behave in a consistent and predictable way.

Kenna paraphrased University of Florida toxicologist Chris Borgett, who said if chemicals didn't behave that way you could eliminate the Food and Drug Administration because there wouldn't be any drugs.

"People wouldn't be receiving antibiotics and chemotherapy, for instance," Kenna said, "because you could not predict what was going to happen. And even though you could administer a dose, the results would be so inconsistent, you'd never know whether to give it to a person.

"So, it's this failure that we're coming to grips with," he continued. "People have no idea what it means if the USGA releases information that there were 2 parts per billion of a certain pesticide found in leaching fractions from a green. That is the crux of our situation. We have to take it to the next step and start explaining what it means."

Research from the past three years is undergoing peer review and later will be published as a book in 1995. Scientists intend to present the findings at a meeting of the American Society of Agronomy in Seattle the week of Nov. 13.

Among the findings Kenna cited:

• Research has demonstrated that nitrogen leaching is minimal, the turf/soil ecosystem enhances pesticide degradation, and the current agricultural models (particularly Groundwater Loading Effects of Agriculture Management Systems) are inadequate at predicting the fate of pesticides and fertilizers applied to turfgrass maintained under golf course conditions.
• At Rutgers University, a new nematode was developed and released, holding promise for control of white grubs equal to some insecticides.
• Researchers at the University of Kentucky have documented several beneficial predators of white grubs and cutworms that can help reduce pest egg population.
• Pennsylvania State University runoff plots irrigated with six inches of water per hour yielded nitrogen and phosphorous amounts less than or equal to that found in the irrigation water itself.
• Dislodgeable pesticide residues were only significant immediately after a pesticide was applied to turf.
• Pesticides break down faster in the turfgrass environment than what is typical when these materials are applied to agricultural crops, according to most preliminary results.

WINTER PREP

Chemical companies attack snow mold

Continued from page 22

• PBI/Gordon Corp.'s flagship product is Tereneec SP, which combats gray snow mold, pythium and brown patch, according to Central and North-west Regional Manager Earl Tracy.
• Since 1987, Banner has been Ciba's main product to combat snow mold, according to Tom Housenworth, manager of technical support in the Turf and Ornamental Department. Banner is very effective against pink snow mold, he said. It works well on Typhula incarnata, a gray snow mold found primarily in the

Microfoam and Velcro key to experiment

Continued from page 22

ers start paying for themselves compared to straw. Plus, he said, "you have far less labor putting the covers on and off." Last winter, Crayton said, his greens "wintered better than they have in the last few years. I'm optimistic. If I get a lot of ice, I'm not going to get complete kill. Some of the greens will still be there and the greens will green up come spring."

Crayton is rebuilding the greens on his 18-hole facility and plans to add one per year of his self-made covers to protect the old greens until they get rebuilt. "We're rebuilding two greens a year. Hopefully, when I get the new greens built to USGA (U.S. Golf Association) specs, they will have good drainage and won't puddle, so I'll have less need for the covers," he said.

He suggested that superintendents interested in his method experiment by making a small Crayton cover and trying it on a problem green or two. He also stressed that covers should be kept out of the sunlight while in storage.

When the greens come out of the winter and the covers are removed, Crayton recommended using breathable covers on the eastern United States and Canada. But it is less effective in heavier-snow-cover areas such as upper Michigan where the Typhula ishikariensis strain of gray snow mold is found, Housenworth added.

• DowElanco has marketed Rubigan AS for about 15 years, according to Mark Urbanowski, manager of technical support for the Turf and Ornamental Division. Rubigan AS is a broad-spectrum, systemic fungicide that is effective against both gray and pink snow mold, Urbanowski added.

Banner's Microfoam and Velcro key to experiment

Continued from page 22

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