Wetlands Regs Tighten Screws
New Nationwide Permits are delayed until April, but will be tougher.

Aventis Env'l Science Unveiled
Revamped Chipco Professional Products Division to serve golf industry.

For a preview on the 71st International Golf Course Conference & Show, Feb. 14-20, see pages 17-28.

Gene that limits plant growth discovered
By ANDREW OVERBECK
SAN DIEGO — A team of genetic scientists at the Salk Institute lead by Dr. Joanne Chory have discovered the gene that controls plant height by limiting the activity of a growth hormone. The scientists have been successful in transferring the gene to tobacco plants and experiments are underway with rice. If they can get it to work in corn or rice, then the chances of it working in turf go from promising to highly possible.

Prospects are bright for no-mow turfgrass
That works, potential applications in turfgrass may not be far off.

“if it works in tobacco there is promise,” said Dr. Mike Kenna, director of research for the United States Golf Association (USGA). “If they can get it to work in corn or rice, then the chances of it working in turf go from promising to highly possible.”

In the popular press, the discovery of the growth gene has garnered headlines touting the possibility of “no-mow” turf, prompting joy among homeowners who believe they will

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Century’s Top Supers: Sherwood Moore, Warren Bidwell
By PETER BLAIS
Warren Bidwell and Sherwood Moore were the most influential superintendents of the 1900s, according to a Golf Course News’ survey of past Golf Course Superintendents Association of America (GCSAA) presidents, former Canadian Golf Superintendents Association presidents and current GCSAA chapter presidents.

Bidwell — a 64-year GCSAA member, national director and Distinguished Service Award winner — received the most votes among deceased nominees. He was followed, in order, by Colonel John Morley and Chester Mendenhall (tied for second), Joe Valentine, Leo Feser, Arthur Snyder, Harold Stodols, Bill Lyons, Marshall Farnham and Tom Johnson.

Sherwood Moore — a longtime GCSAA member who served as

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New openings eclipse 500
By MARK LESLIE
JUPITER, Fla. — The golf boom of the 1990s has continued into 2000 in a record-eclipsing way. Some 509 golf courses came on line in the United States in 1999, according to the National Golf Foundation (NGF).

Continued on page 3

Meadowbrook becomes 3rd-largest manager
By PETER BLAIS
BEVERLY HILLS, Calif. — Meadowbrook Golf Group has acquired the balance of Fairways Acquisition Corp., the entity formed to facilitate last fall’s 30-course acquisition of KSL Fairways from KSL Recreation Corp. Meadowbrook now owns 100 percent of Fairways Acquisition Corp.

KSL Fairways was the non-resort division of KSL Recreation, which continues to own such high-profile properties as Doral in Miami and LaQuinta and PGA West in Palm Springs, Calif.

Fairways Golf consisted of 24 golf properties primarily in Virginia, Maryland, and

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WHO NEEDS "FOOTPRINTS"?

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No-mow grass
Continued from previous page
the other half, that would be great," said Mangum.
According to Neff, it may be possible to dial in exactly the amount of growth you want. "These grasses need to grow, or you will never be able to propagate them," said Neff. "There are promoters that determine where and when the gene is expressed, so you might be able to hook up this gene with a different promoter and regulate its expression with the application of chemicals."
Cutting down on growth, however, may not mean a drastic reduction in the frequency of mowing.
"To a large extent, mowing is done not only to combat top growth, but to make the turf look tidier. You may be able to get away with mowing only four times a year, but in between that, the turf is going to look pretty ratty," said Dr. Doug Brede, research director for Jacklin Seed.
THE FUTURE
Neff and his colleagues are working on transferring the gene to rice plants and expect that it will be five to 10 years before a modified turf variety is available on the market. Among his concerns are human and animal safety, disease resistance, regulatory issues and marketability. The risks of hybridization with native plant species will also be studied in the coming years.
"We will be looking at how the gene works in a number of different plant species, including trees and grasses," said Neff. "Once we have accomplished that, we hope to attract a private biotech company that is interested in pursuing this further and actually moving it into the varieties of grass that people would be using. Then we can get into product-driven research."
Turf scientists, meanwhile, remain cautiously optimistic. "Until they get some of these things out of the lab and see what they look like in practice, I am not going to invest my money in it just yet," Brede said.

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Chlorpyrifos
Continued from page 4
government relations liaisons."
The GCSAA also submitted a comment on chlorpyrifos stating that it was a valuable pest control tool and that user exposure risks are not high.
Going forward, chemical re-assessments under the Food Quality and Protection Act of 1996 (FQPA) will continue to affect superintendents and the GCSAA will be on full alert.
"We will be conducting a survey that will gather information on chemicals that are coming up for review ... it should be helpful to the agency to show chemicals are being used effectively and safely," said Riordan.
In addition to chlorpyrifos, several chemicals are in EPA's re-assessment pipeline: acephate (Orthene), ethoprop (Chipco Mocap), fenamiphos (Nemacur) and trichlorofon (Dylox and Proxol).
In the meantime, Dow is proceeding with various studies to avoid any use restrictions on chlorpyrifos. Dow has commissioned a Nebraska laboratory to conduct human tests to determine chlorpyrifos' possible side effects on people.
"One of the elements of FQPA is that the EPA wants to have more information about compounds. One of the things lacking is non-food exposure data," said Maniscalo. "We are trying to fill in these data areas and we are continuing to do studies and tests on these compounds."
While human testing has proved controversial with the EPA, Maniscalo insists that the tests are safe and have to be done.
"We go through medical board reviews and up until now these have been accepted by the EPA," said Maniscalo. "Ultimate this gives us a much wider margin of safety because we have greater confidence in relating the animal data to humans. It is one of the most-studied pesticides."
If everything goes smoothly, the EPA should release its revised risk assessment by March or April. That will be followed by another 60-day public comment period and subsequent review period after which the EPA will issue its final assessment on chlorpyrifos.