



THE WORLD OF MAINTENANCE IN '97

If necessity is the Mother of Invention, then greenskeeping is the Father of Invention. This is proven again and again, from the shop to the fairway. Experimenting to ease the chemical and financial pressures on maintenance, superintendents have dipped deeply at the well of invention. Among their findings: barley straw fights algae, a molasses and cane sugar mix gives turf a quick flush, and shag carpet is a superior replacement for sod on sod-wall bunkers.

Meanwhile, superintendents and their crews are better educated. There are more college-educated first and second assistants and irrigation specialists. At the same time, burgeoning mechanics programs are starting around the country.

Parallel to all this progress, university scientists — many funded by the U.S. Golf Association — are discovering the impacts, or lack thereof, of golf course maintenance on water supplies, wildlife and the environment.

The maintenance business is fairly bursting with news and discoveries. The following pages give a glance.

— Mark Leslie

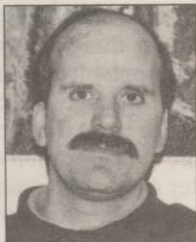
Notable quotables



Judy Bell

● "If we want perfect we can just stay at home and putt on a rug."

— Judy Bell, president, USGA



Kevin Ross

● "You can spend a long time in a filing cabinet, or you can get a computer."

— Kevin Ross, CC of the Rockies

● "You've got to use common sense out there. It's like working in a fish bowl. People see what you're doing. Three or four kids edging a bunker is not acceptable."

— Bob Feindt, superintendent retiring from CC of Rochester

● "We tried in the '40s, saying spikes were terrible on the turf, and that did nothing. No, the impetus for going 'spikeless' is the golfers. It has nothing to do with research, or the USGA ... or anything else."



Jim Snow

— Jim Snow, USGA Green Section director

OSHA targets ergonomics controls on industry

By MARK LESLIE

WASHINGTON, D.C. — Arguing that ergonomics is the solution, not the problem, the Occupational Safety and Health Administration (OSHA) ergonomics coordinator defended the agency's work to define guidelines for the workplace.

"Our Congressional mandate is to prevent injury and illness in the workplace," said Nancy Adams. "The way the debate gets framed, ergonomics is the problem. But it's not. It's an intervention strategy to prevent the injury from happening, by good engineering, good process design, fitting the job to the worker and not the worker to the job. You can't do that as one-size-fits-all."

OSHA's push into the realm of ergonomics is not new. The first ergonomist joined the agency in 1979, and talks with labor, trade associations and professional organiza-



tions began in the early 1980s. But the business and industry communities got concerned when, in 1992, an "Advance Notice of Proposed Rulemaking" targeted such items as:

- Lifting or carrying anything weighing 25 pounds without assistance more than once during a workshift.
- Using vibrating tools, which would include weed-eaters, for more than two hours.
- Working in awkward positions (such as kneeling, stooping or squatting) for more than two hours.
- Performing the same motions every few seconds.

"That's called labor," quipped one superintendent regarding the 25-pound limit. "The standard weight [for bags for various products] is 50 and 80 pounds."

Various other chores on a golf course maintenance crew

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Fathers of Invention

GCN JANUARY

Carpet-wall bunkers expected trend-setter

By MARK LESLIE

SCITUATE, Mass. — Some inventions seem to be just laying around under a bush waiting to be discovered by an innovative mind. Such was the case of the "sodwall bunker kit in waiting" — Dr. Michael Hurdzan's answer to standard, old-time stackwall bunker.

Fresh from a trip to Scotland, the home of sod-wall bunkers, Hurdzan was walking the property of what would become

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GCN AUGUST

Barley straw a fatal attraction for pond algae

By MARK LESLIE

TORONTO — News flash: Folk remedy strikes at the heart of the pond algae problem.

While science and technology are striving to remove algae from ponds, some superintendents are accomplishing the task with a simple bale of barley straw.

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GCN JANUARY

Mounted hose reels equal easy watering

By KEVIN J. ROSS

VAIL, Colo. — In all my years in golf course management, I have yet to see the perfect irrigation system. I do not believe this is due to a lack of irrigation design or equipment, but rather of agronomic science. Let's face it. No irrigation system can replace the agronomic benefits of a good hand-watering program. If you're not hand-watering on a consistent basis (when needed), perhaps you should evaluate your watering practices.

Hand-watering is a pain, but it can make

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GCN MAY

Ground, surface water: Minimal impact

By MARK LESLIE

WHEATON, Md. — Preliminary findings of studies monitoring ground- and surface-water quality at nearly 40 golf courses re-enforce golf industry claims that courses are not a danger, particularly when compared to other sources of chemicals, according to Stuart Cohen, president of Environmental & Turf Services, Inc. here.

"Overall, these results show that golf courses are not having a significant impact on human health or aquatic organisms relative to other sources of chemicals in the environment," Cohen said of the study he conducted for the Golf Course

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GCN NOVEMBER

Dicamba, 2,4-D no problem on greens

By MARK LESLIE

BELLE GLADE, Fla. — A two-year study of a U.S. Golf Association-specified golf green by University of Florida Profs. George Snyder and John Cisar has found that concentrations of the herbicides 2,4-D and dicamba were low in the thatch and soil and far below federal maximum contaminant levels (MCLs) in percolate water.

"Dicamba and 2,4-D, particularly dicamba, are pretty mobile in sand soils, and most people don't want any in their drinking water," said Snyder, adding, "As far as I know,

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No, this is not sod, which needs repair every couple of years. It's shag rug.



A bale of barley straw floats atop a one-acre pond at Toronto's Board of Trade Country Club.



Three types of hose reels used at Country Club of the Rockies: mounted to an E-Z-GO (left); mounted to a Kawasaki Mule (center, in use); and mounted to a fabricated trailer.

TO 'TREE' OR NOT TO 'TREE,' THAT IS THE QUESTION

● 'I can talk to a green chairman and say, 'Your job is not on the line here; the superintendent's is. Next time you drive by a sod farm, count the trees and look at the quality of the grass. Do you want toe Oconomowoc Arboretum or Oconomowoc Golf Club.'

— Craig Shreiner, course architect

● 'You all like trees. But I'll tell you, the game of golf is played from blade to blade, not from limb to limb.'

— Bob Brame, USGA Green Section

Ergonomics

Continued from page 13
could be affected by proposed new regulations.

But Adams said, "Old draft proposals are not relevant.

"Clearly the information we collected, in terms of baseline data for exposures and that sort of thing ... will all be used as we move forward to try to figure out

how to address the issue from a regulatory perspective. But the approach we will take hasn't been determined yet."

Adams said OSHA will conduct a series of conferences with "stakeholders" around the country to gather their input and concerns on effective practices of ergonomics. The next will be held Sept. 23 outside Buffalo, N.Y. The specifics will be announced from OSHA's 10

regional headquarters and through its site on the OSHA web page: <http://www.osha.gov>.

The first session, in January, drew more than 1,000 people.

"The clear running thread of everything presented," Adams recalled, "was that OSHA should proceed with a programmatic approach."

Adams defined "programmatic" as having a program that contains "top-management commitment to deal with the issue; employee involvement in the cost-effective solutions to problems they have; training and education; job analysis; and some type of intervention, whether it's engineering controls, rotation, job modification, tools, etc., and medical management.

"If they have a process in which all these things are dealt with, they're addressing ergonomics from a programmatic standpoint. It's not any one thing, but a process."

Asked whether new regulations might include such parameters as the 25-pound limit of 1992, Adams said: "I don't know that in the foreseeable short term we will have enough information to pick specific triggers like that. We may be able to say that there is a range of triggers.

"The issue can get so skewed when people get down to an individual's capacities to do a specific job. Maybe in our lifetime there will be science or technologies to allow us to say you can do this amount or that amount, but we're not there. Until then, there need to be boundaries. Those boundaries need to be flexible enough, in terms of industries and operations, to allow the process to continue. But they also need to be defined enough so that we try to limit the number of people who get hurt."

Adams thought those in the golf industry should look upon ergonomics as a cost- and manhour-saving issue.

"Folks who have successfully dealt with this," she said, "lowered their compensation rates, lowered their injury and illness rates, and lowered the severity of the injuries when they indeed still had some injuries."

Most important, she said, is that "this is not a one-time process. Dealing with ergonomics is never-ending. The easily recognizable things you fix quickly. Other things you don't see right away. With others, you might fix one thing and unwittingly create another; or you trade one stress for another one.

"Some liken it to the song 'Hotel California.' You can check out, but you can never leave. But it's clear the investment up front, while it seems cost-intensive, in the long term pays and pays and pays for itself."

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