

# Learning curve the major bump in green speed

By MARK LESLIE

MONTREAL — Operating in the fast lane of green speed, the turfgrass industry is still on the learning curve and with no finish line in sight, according to Dr. James Beard.

The former Texas A&M professor told an audience of superintendents here at the Canadian

International Turfgrass Conference and Show: "It's a day and age of golfers demanding fast greens. You can agree all you want about a higher height of cut, but I think the golfer will still demand fast greens. It's here to stay."

Beard explained changes in grass cultivars and cultural practices, especially top dressing and

increased rolling, that will help superintendents cope with the higher speeds,

"Green speed differs from cultivar to cultivar," he said. "You cannot assume that higher density equals faster speeds. High-density greens may, in fact, be slower than certain of the lower-density greens, depending on

what cultural practices are used."

Saying there is "a tremendous difference in bentgrasses," including biomass, Beard said that for the first time researchers are able to get actual density counts. It reflects heat tolerance and the grass's ability to be grown more easily.

"You're going to be more suc-



cessful growing greens with dense root systems," he said.

New grasses, able to be cut at 3.2 millimeters (1/8-inch), "suddenly are performing very well," he said. "Times have changed. At many places, these are the grasses that will be used in the future."

Speaking of the Penn-series bentgrasses, Beard said: "There is a learning curve on their culture. They have density that dictates different vertical cutting, top-dressing regimes and approaches in terms of nutrition. But high-density types are very impressive, very promising. They will help solve a lot of the problems on those golf courses where extraordinarily low mowing heights are demanded by the membership."

Meanwhile, research has illustrated that superintendents should consider rolling their greens as opposed to further lowering mowing heights.

"Lower mowing," Beard said, "results in weakened turfgrass, shallow rooting, more moss and algae problems and the controls that are required for that."

On the other hand, today's greens with high-sand root zones don't compact, so the option of rolling involves minimal negatives. And, Beard said, superintendents can also cut the grass higher and roll it.

He cited ball-roll studies done on a putting green of mature creeping bentgrass with normal mat and no thatch, on well-drained greens and high-sand root zones. It was a fast green. Pre-rolling distance, according to Stimpmeter readings, ranged from 9.3 to 10.7 feet.

The findings included:

- A single rolling in early morning consistently increased the distance 10 percent. Double-rolling raised it 11 percent. Three-roller units raised the distance 17 percent and four rollers increased it 20 percent.

- Speed gained by rolling with a single roller drops 5 percent by mid-afternoon. But it comes back up the second day.

- Generally, turf-rolling benefits lasted two to three days. "So we're looking at rolling twice or three times per week," Beard said.

- North Carolina State University rolled seven times a week and found that any rolling beyond three times a week they started to see thinning and loss of turf.

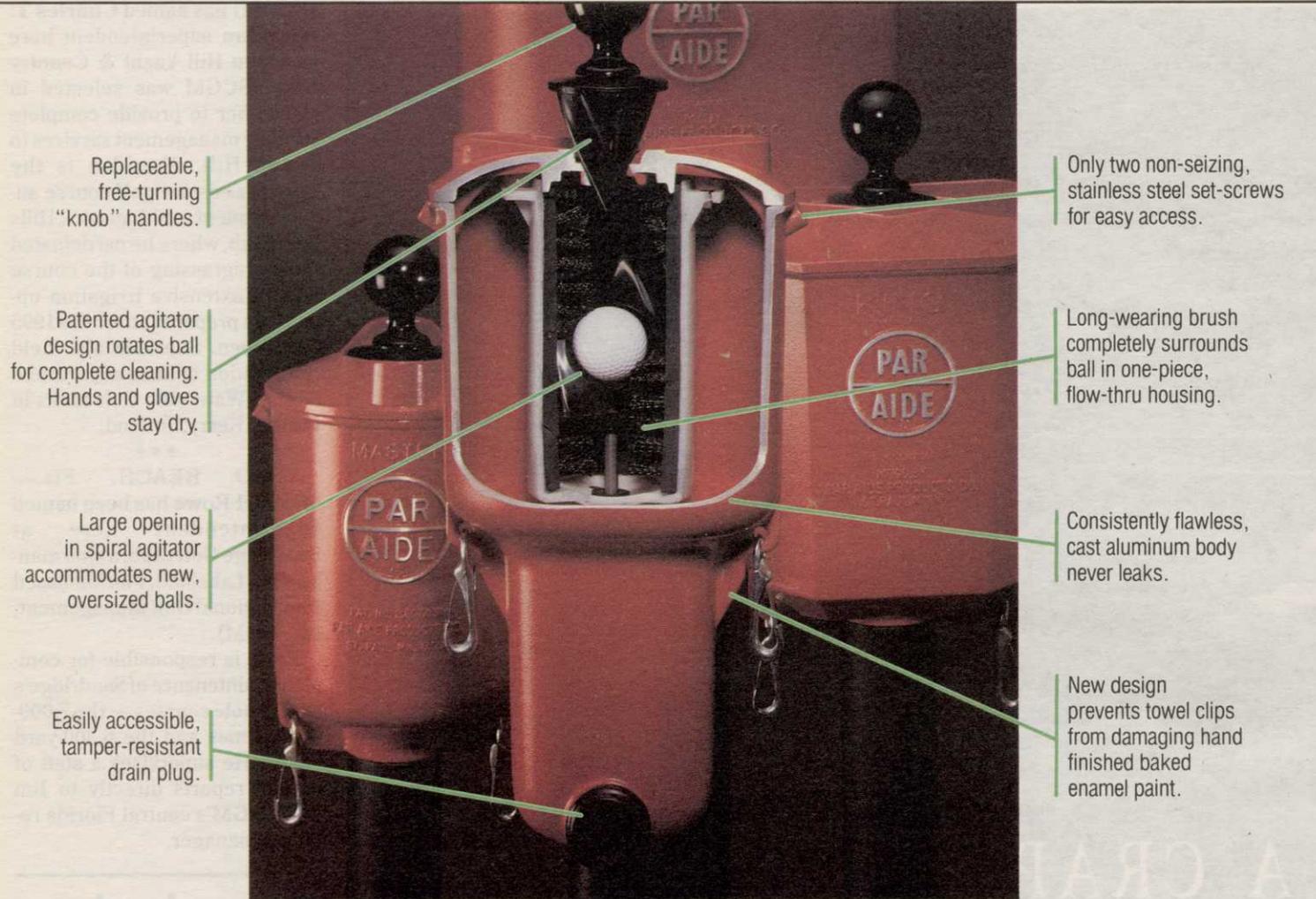
- It's best to roll immediately after mowing. Rolling beforehand provides very little effect.

- Operating speed of the roller does not influence distance in ball roll.

- Long-term rolling studies at

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GOLF COURSE NEWS



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By MARK LESLIE

**M**ONTREAL — Declaring that a large gap exists between scientific evidence and the perception of danger, Dr. Harry Baikowitz said the media, governments and environmental groups are scaring the public and taking its money to correct "problems" that don't exist.

Speaking at the Canadian International Turfgrass Conference and Show here, Baikowitz addressed the myths and realities of environmental concerns, saying, "Some myths die hard." They die hard, he said, because the media manipulates them and environmentalists perpetuate them.

Listing a barrage of "myths" from the alar scare to the claims that cranberries and cellular phones cause cancer, Baikowitz added, "Blaming ozone depletion and global warming on CFCs and humans is a leap that has no basis in scientific fact."

"There is more truth," he said, "to Woody Allen's statement: 'Help stamp out pollution. Eat a pigeon.'"

Baikowitz, whose doctorate is in chemistry, cited the existence of a "fear coefficient" in which the more common the chemical that is being discussed, the higher the fear.

False claims, he said, are also being made against golf courses.

While pesticides are described as "toxic," "dangerous," "ground-water pollutants," Baikowitz said: "We've done a lot of studies on the retention of all forms of pesticides, especially fungicides,

## Science today: Myth & theory vs. fact

in water and soil, and our data certainly does not support that there are any kinds of residuals that would contaminate underground waterways of golf courses. And these [courses] have been around for at least 40 years."

The government defines "dangerous" as a substance that

causes a substantial increase in mortality, he said. "If a pesticide can add one cancer in 1 million people, it is considered a carcinogen. Yet one of three people get cancer in their lifetime."

Turfgrass diseases are treated with fungicides, he said, and they represent 1.6 percent of total pesticide use in North America.

They have the lowest toxicity to humans.

"Nature generates toxins that are at least 10,000 times more toxic than any manmade chemical, and we're exposed to them every day," Baikowitz said.

The "real data" that exists, he said, "does not support the hysteria and finger-pointing we're

exposed to day to day."

Yet, he added, superintendents must be armed with facts in order to answer concerns or false claims from golfers and others.

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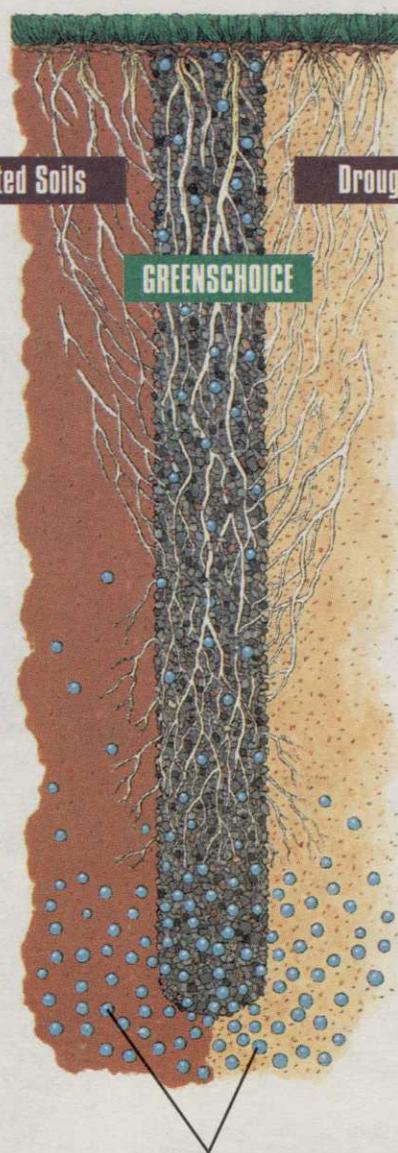
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## Beard on speed

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Michigan State University found more than 50-percent control of brown patch and several other disease organisms on plots that are rolled.

- Rolling provides a decided visual improvement in surface smoothness for ball roll.

- How much higher cutting height does rolling allow? Certainly 1/32 of an inch and, in some cases, 1/16 inch, depending on leaf-growth rate, Beard said.

"Certainly rolling is back in vogue," he said, "and with minimal problems — if you don't do it more than three times a week and if you do it on properly constructed high sand-based greens. It will be with us a long time."

While rolling is one of the oldest techniques in turf, Beard said: "Yet we are just starting to learn about it... A lot of changes are happening. They have implications not just on the choice of a cultivar, or rolling practices, but the total cultural management program that is allied with that. We have a lot to learn about how they will be best used."