**GREENS ROLLERS**

# The odyssey takes another turn as practice returns to its roots

By HAL PHILLIPS

The practice and related saga of greens rolling has come full circle.

At the turn of the century, greens rollers were commonplace. Putting surfaces were often rolled into submission with large cylindrical beasts that more closely resembled steam rollers. Pounds per square inch (psi) was not a consideration.

Slowly, this practice fell out of favor before being revived in the late 1970s, as members clamored for ever-faster putting surfaces.

The mid-1980s saw another fall in greens rolling stock, as overuse and misuse of the equipment resulted in severe compaction problems. Greens and superintendent jobs were lost.

Today, greens rolling is enjoying a comeback as the emphasis shifts from creating speed to creating healthier, more consistent turf conditions on the green.

"It's like any other tool," said Tim Hiers, superintendent at Collier's Reserve in Naples, Fla. "If used properly, it can be a great benefit.

"I'm not rolling my greens for speed, though. If I can raise my cutting height and maintain a consistent speed, I'll do it. That's what the roller does.

"By raising the cutting height, I get a deeper root system and more leaf surface. And that means better resistance to foot traffic, less water and few pesticides."

Some manufacturers of "greens rollers" cringe at that label. "Turf iron" is more appropriate, they maintain, because new models are lighter and designed to create more consistent putting surfaces, not necessarily faster ones. Further, the heavy duty greens "roller" is still a useful tool when it comes to greens construction, i.e. smoothing out green beds before seeding or sodding.

According to North Carolina State researcher Chris Hartwiger — who presented a report on greens rollers at this year's Golf Course Superintendents Association of America show — three broad categories of rollers are in use:

- The self-propelled unit designed specifically for rolling greens. "Typically, these units have two or three rollers, with one or more... acting as the propulsion force or drive roller," said Hartwiger, who added this type of machine places 3.5 to 7.5 psi, depending on the weight of the operator.
- The triplex attachment, allowing greens to be rolled according to the same pattern they are mowed. The psi associated with these models tend to be lower than self-propelled models, as they are even lighter. One manufacturer has added to a lightweight rolling attachment a vibratory element designed to settle irregularities in the green without taking a heavier roller across the green.
- The single- or multiple-drum roller, most often pulled behind a utility vehicle. Sand, water or other ballast can be added to the drum to increase the roller's weight.

Hartwiger cited two North Carolina State studies that shed light on rolling practices.

One study explored "the idea that rolling could be substituted for mowing while still maintaining the desired green performance," Hartwiger explained. "Bentgrass plots on a highsand root zone were either rolled three times and mowed four times per week, or rolled one time and mowed six times per week. On the day the plots were not mowed, they received a rolling treatment. Preliminary results indicate the green speed remained relatively consistent throughout the week. "

Both studies showed that compaction increases when greens are rolled more than three times per week, especially on putting surfaces built on clay-based soils. "Also, the shorter the mowing height, the greater the visible turf loss," Hartwiger stated.