

Cutting the poa population to 20 percent dramatically cut irrigation costs

## Success with one fairway leads to renovation of course

**B**attling infestations of *Poa annua* is not a unique problem for most golf course superintendents. But, renovating the entire course to help eliminate the weed is.

Dave Portz, Superintendent at Brookside Country Club in Macungie, Pa., did just that in 1979, (*Golf Business*, November, 1979) and claims to have not only minimized the poa population, but saved a considerable amount of time, money and labor to boot.

After five years of trying to curb "almost a 100 percent infestation of poa" on his golf course by conventional means, Portz started experimenting with the idea of renovating the existing turfgrass with an application of Roundup herbicide, and then overseeding immediately into the treated area. He began in 1978 by renovating a 14-foot strip on the 10th fairway, graduated to a renovation of the entire 13th fairway, and then renovated the entire course in the spring of 1979.

With a strong playing membership and a somewhat modest budget, Portz was mainly concerned with achieving enough of a population change to help cut irrigation, labor



**Golf cars** are allowed most of the time (above) because there's not much poa to further stress now. Dogleg at 18 fairway is shown at left.



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and chemical costs. He was also seeking to create a playing surface that would be well-suited to his membership's golfing needs while standing up well under the stress of heavy traffic.

"Since we were faced with such a severe poa infestation, we needed to replace all the turf. But, we also wanted to choose a method that would eliminate the poa without closing the course to play. Roundup allowed us to fulfill both obligations," says Portz, noting that the existing bluegrass was controlled by spraying Roundup on the first nine holes, followed by a similar application on the second nine. This allowed the course to remain partially open during the two half days of herbicide treatments.

"If we had chosen to plow the course under, we would have had to close the course," notes Portz. "That would have been totally unacceptable to our membership. With Roundup, we got good renovation results, while still providing a suitable playing surface, even if it was dead grass for the beginning of the 1979 season."

#### A World Of Difference

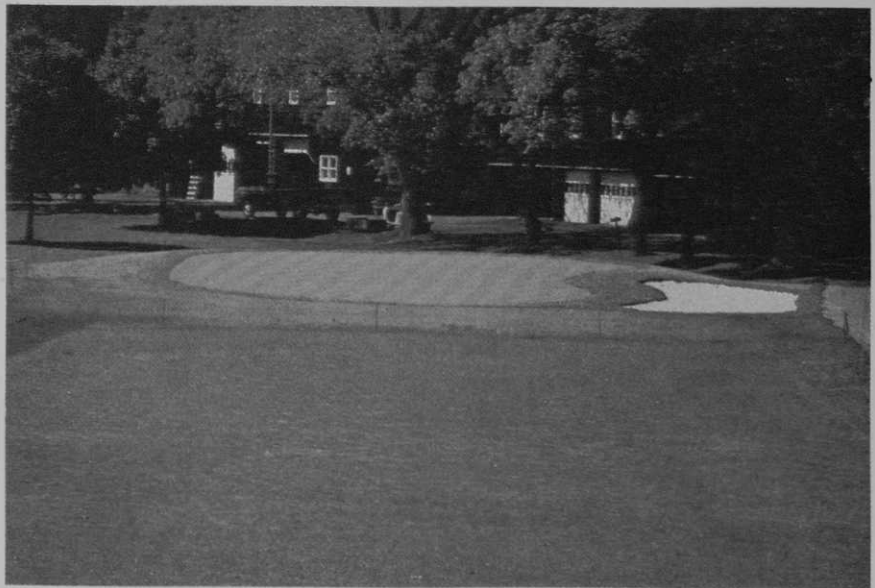
Realizing that total eradication of poa is impossible, Dave aimed his sights at a significant change in population rather than a 100 percent turn around. He now reports that more than 80 percent of his course is a perennial bluegrass/ryegrass combination, and less than 20-percent is infested with poa annua.

"While it may sound like we still have a poa problem, we couldn't be happier with this split," contends Portz. "The poa is scattered throughout the perennial bluegrass and because it is blended throughout the stand, we no longer have to do excessive watering during the stressful months of July and August."

To prevent the spread of the remaining poa, Portz has implemented a strong tactic, literally



The fairway leading up to number 10 green illustrates how successful the renovation was.



A new green was part of the renovation.

shutting off the water and irrigating only when absolutely necessary. "The perennial bluegrass/ryegrass combination can take the stress, but the poa can't," he observes. "Less irrigation has really helped to eliminate much of the poa that still remains, while also cutting watering costs substantially."

This strategy of cutting the number of waterings during the summer months proved doubly cost effective this year. Most of southeastern Pennsylvania was stricken with a record-

breaking drought that left the area 10½ inches below normal in average annual rainfall.

Normally, a drought of this magnitude would be a major concern to Portz since the poa would require three to four waterings a week in addition to daily syringing. "Watering a poa course in a situation like this only compounds the problem," he says, adding that while the course may look green, the risk of insect damage and disease is greatly

*Continues on page 36*

LP-200	100%
Manhattan	75%
NK-200	100%
Omega	80%
Pennant	80%
Pennfine	75%
Premier	80%
Regal	100%
Yorktown	75%
Yorktown II	100%

**Bentgrass**

Astoria	20%
Bardot colonial	100%
Emerald	100%
Exeter colonial	100%
Carmen	Ltd.
Highlight colonial	100%
Kingstown velvet	100%
Penncross	100%
Penneagle	78%
Seaside	100%

**Others**

'Fulfs' Puccinellia distans	60%
Redtop Poa alba	100%
Reubens Canada bluegrass	100%
Sabre Poa trivialis	100%

increased.

**Less Than Half The Average**

"We only applied 3.2 inches of water this year, less than half of what we used to apply to our course under normal conditions," reports Portz. "Neighboring courses began watering in June. We didn't even consider irrigating until July, and actually didn't make the first watering until July 15. Given these same conditions two years ago, I'd estimate I would have had to apply close to nine inches of water."

Having cut his irrigation needs in half, Portz made only eight waterings between July and mid-September, one of which was to wash in an application of Pre-San. "Looking back on the situation, I feel we could have watered even less," he contends. "That would have brought the poa infestation down even lower. But, not having dealt with this situation before, I was somewhat hesitant as to how far I could stress the new turf. Next year, if we have the same conditions, I hope to cut back even further."

Fewer waterings also helped save labor, conserve water, and reduce wear-and-tear on the pumps, says Portz. "It's impossible to figure how much we saved on electricity. But, water and labor costs were cut by 50 percent, and we spent no money on overtime because extensive irrigation wasn't needed and we didn't syringe one green or fairway."

The greatest cost efficiencies, however, were achieved in the area of water conservation, Dave points out. "With a low water table due to the drought and not knowing if the soil moisture would be replaced before the ground froze, we might have been faced with a critical situation if a similar drought were to occur next year. Since conservation is foremost in every superintendent's mind, and our new turf requires a minimum of water, we were able to conserve enough water so that we can hopefully irrigate all the greens and trees next year, irregardless of the amount of rainfall."

potential for outbreaks of pithium and brown patch which thrive under high, humid temperatures," he points out. "But, if I was dealing with a poa course, that would have had to be water constantly under this year's conditions, we probably would have had severe disease problems."

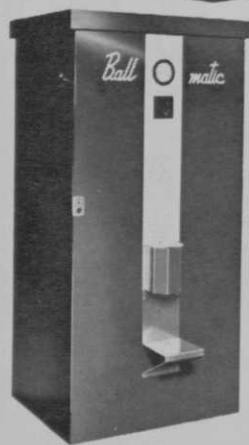
Many courses in southeastern Pennsylvania made 12 or more fungicide applications plus several spot applications throughout the season. "We saved close to \$5,000 on fungicide alone," claims Portz, "not to mention the aesthetic benefits of no brown patches."

In weighing all the benefits of the renovation, Portz is quick to note that improved playing conditions are the bottom line. Mowers can now be benchset at one-inch all season long, while the poa-infested course required cutting the fairways higher during the stressful summer months. As a result, the new turf provides the membership with a uniform playing surface all season long.

Another new advantage is that golf carts are now permitted on the fairways year-round, a great improvement over the days when they were restricted to prevent additional turf loss over the summer. "We lost less than one percent of our turf this year, if that much," Portz contends. "In a season such as we had, with a poa-infested course, we could lose as much as 10 percent. And we've never had a summer this dry."

Although he is modest about the beauty of the course, a post-renovation increase of 30 percent of in-cart revenues and 10 percent of guest fees confirms that it is not simply in the eye of the beholder.

"The most satisfying aspect of all," concludes Dave Portz, "is that we're now able to provide a uniform turf cover all year long. There are no soggy wet spots or patches of dead turf and the membership is very, very happy. That's the bottom line: keeping the membership happy with a turf management program that is cost effective so we can devote our energies and money to other course improvements. **GB**



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**Less Fungicide**

In addition to cutting irrigation, the taming of poa has also helped Portz cut fungicide treatments to one application versus 12 just two years ago. "The dry conditions reduced the

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