Seashore Paspalum on Firm Ground

BY KARL DANNEBERGER

Since the start of the new millennium, one of the most exciting advances in golf course management is the use of seashore paspalum (*Paspalum vaginatum*). In subtropical and tropical climatic regions, the excitement over seashore paspalum is because of its salt tolerance. But the variety is also known for its fine texture, drought tolerance and enhanced shade tolerance compared to bermudagrass.

Regarding salt tolerance, certain cultivars can tolerate 40 decisiemens (dS) per meter (m) of salt water with minimal growth reduction. For comparison, ocean water is 54 dS m^{-1}. For this reason seashore paspalum has the potential to expand golf into areas where water quality has traditionally been too poor to maintain turf.

With the tremendous interest and release of turf-quality cultivars, the cultural programs for maintaining seashore paspalum have lagged behind. Although research is sometimes produced at a slow pace, these are a few things that we've learned about seashore paspalum:

- New cultivar selections are continually being made. Although salt tolerance is a major advantage of seashore paspalum, variation does occur among cultivars (Raymer, 2006). Cultivar selection should be considered as carefully as you would select for any turfgrass species.
- Seashore paspalum has excellent drought tolerance because of a deep and extensive root system. The downside associated with the deeper root systems and corresponding production of secondary stems is the possibility of excessive thatch buildup. Initiating an aggressive thatch management program is critical.
- Nitrogen fertility requirements are considerably less than bermudagrass. In developing a fertility program, a good starting point is applying 3 pounds to 6 pounds of nitrogen per 1,000 square feet per year. High rates of nitrogen applied to seashore paspalum enhance bermudagrass invasion. Although nitrogen requirements can be relatively low compared to bermudagrass, potassium and calcium requirements are potentially higher. Soil testing should be an important aid in developing a fertility program.
- When originally released, very few pests were associated with seashore paspalum. However, with increased usage across varying conditions, both disease and insects are becoming a concern. *Rhizoctonia* diseases (brown patch, large patch) are a possibility. Although published research on *Rhizoctonia* species attacking seashore paspalum is limited, the fungi have a high tolerance to salt. *Rhizoctonia* diseases and dollar spot would be potential problems in the spring and fall.

BUT THERE'S STILL A LOT TO BE LEARNED ABOUT THE SALT-TOLERANT TURF VARIETY

- Insect pests of seashore paspalum include cutworms, fall armyworms, grubs, mole crickets and billbugs. Recently, the greenbug has been reported to cause some damage to seashore paspalum. The degree varies at which each of these pests can cause damage. With seashore paspalum, these pests should be treated in a similar fashion as they are to other warm-season grasses.
- Weed control, specifically bermudagrass, is a difficult proposition. There is no good chemical control for selective bermudagrass removal. The common practice of placing piles of salt on patches of bermudagrass has not been effective consistently. Certain varieties and biotypes of bermudagrass have a high tolerance to salt.

Like all turfgrass species, seashore paspalum is no silver bullet. It has tremendous upside, but it also comes with associated problems. For those who have established and maintained seashore paspalum the last few years, management programs have evolved by trial and error.

Although research sometimes appears to trudge forward, help is on the way. New studies focus on how to maintain seashore paspalum under various conditions.

The key is to stay informed.

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