

TURFGRASS TRENDS

TURF VARIETIES

Seashore Paspalum Putting Greens Rate Well With Golfers

By Mike Healy

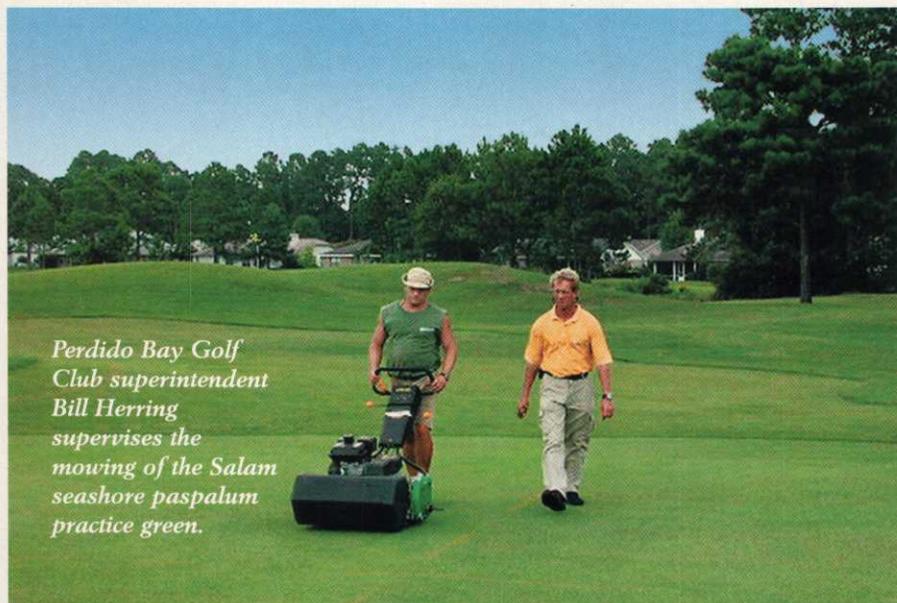
In 2000, the Perdido Bay Golf Club underwent an extensive redesign and renovation. Tifeagle ultradwarf bermudagrass was selected for use on all in-play greens. Salam Seashore Paspalum was selected for use on roughs, fairways and tees. In addition, two practice greens were sprigged with Salam.

To prevent Salam from encroaching into the Tifeagle greens, a 42-inch wide barrier of Tifway 419 bermudagrass sod was planted around the edges of each green.

In fall 2002, Salam had not only invaded the Tifway 419 barrier but could be found growing as patches up to 2 feet in diameter throughout many of the Tifeagle greens. Also in the fall of 2002, Tifeagle developed significant leaf and root diseases. The patches of Salam growing within the Tifeagle greens were seemingly unaffected by these diseases. It's important to note that the two Salam practice greens were maintained in a nearly identical manner to the Tifeagle in-play greens. The dilemma for Perdido Bay Golf Club now is whether to keep and decontaminate its Tifeagle greens of Salam or to convert the course into a 100-percent Salam facility.

Tifeagle is the most widely used of the ultradwarf bermudagrasses, and often selected because of its ability to produce high Stimpmeter speeds. The seashore paspalums, including Salam, are generally considered in the same class speed-wise as the old stan-

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Perdido Bay Golf Club superintendent Bill Herring supervises the mowing of the Salam seashore paspalum practice green.

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 dard Tifdwarf. Although seashore paspalums are often selected because of their ability to withstand extremely low water quality, this issue was not a factor for use at Perdido Bay.

The objectives of this study centered on evaluating various combinations of cultural techniques that would increase Salam Stimp-meter speeds while maintaining acceptable visual quality. On the larger of the two Salam practice greens, a treatment grid of 16 12-foot by 12-foot areas were established. Each of the 16 areas ended up having a different series of cultural practices.

Cultural practices included different mowing heights (.135 inches and .120 inches), light top-dressing vs. no topdressing, periodic verticutting

TABLE 1

**Perdido Bay Golf Club
 Salam Seashore Paspalum Speed-Up Study**

Sept. 17, 2003 — Turf Quality and Speed Ratings

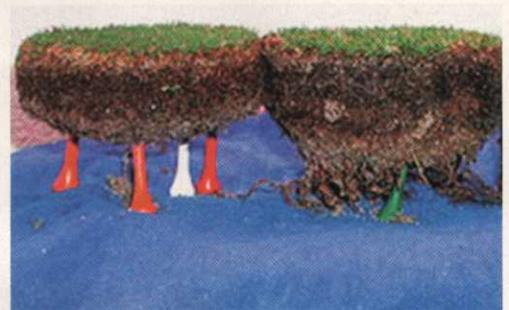
Treatment	10:30 a.m.	3 p.m.	6:15 p.m.	Quality Rating
.135 inches	7	8	7.7	7.5
.135 inches + TD	7.7	8.3	8.4	7.5
.135 inches + P	7.6	8.5	8.1	7
.135 inches + TD+ P	7.1	8	8.3	8
.135 inches + V	8.1	9.1	8.1	7
.135 inches + V+ TD	7.7	9	8.7	7
.135 inches + V+ P	8.2	9.3	8.9	7
.135 inches + V + TD + P	7.8	8.7	8.3	7.5
.120 inches	8.4	9.4	9.1	7
.120 inches + TD	8.3	8.1	9	7
.120 inches + P	8.8	9.6	9	7.5
.120 inches + TD + P	8.7	9.4	9.2	6.5
.120 inches + V	9.9	9.6	10.3	5.5
.120 inches + V + TD	9.2	9.5	9.5	5.5
.120 inches + V+ P	10.2	10.5	9.7	6
.120 inches + V+ TD + P	8.8	9.6	8.8	6.5
Tifeagle in-play .135 inches	9.1	10.2	9.6	8

.135 inches and .120 inches = mowing heights, V= verticut, TD = topdressing, P = Primo Maxx® Stimp-meter ratings (in feet) at times listed in first three columns, last column is turf quality rating where 1 = lowest quality to 9 = highest quality (color and uniformity). Mowing previous to these ratings was done on Sept. 16 at 9 a.m. Green was rolled only at 9 a.m. on Sept. 17.



▲ The practice putting green was broken into individual turf plots. Each received different management regimens.

▼ The seashore paspalum roots (right) drove deeper into the soil than those of the Tifeagle.



vs. no verticutting, and the use of Primo Maxx plant growth regulator vs. no Primo Maxx. The study began with the first application of Primo Maxx on July 25, 2003, with speed rating and visual quality measurements for all 16 treatment combinations taken on Sept. 17.

Two golfer preference studies were conducted on three separate Salam putting surfaces on Sept. 26 and Oct. 2. In all the evaluations, the Tifeagle No. 18 in-play green was used as a standard of comparison to the 16 different Salam putting surfaces

Results summary

On Sept. 17, speed ratings were taken at 10:30 a.m., 3 p.m., and 6:15 p.m. for the 16 Salam cultural practices combinations along with the No. 18 Tifeagle in-play green.

At 3 p.m., visual quality ratings were taken.

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FIRST ROUND — GOLFER PREFERENCE SURVEY

Perdido Bay Golf Club, Paspalum Speedup Study

On Sept. 26, 30 golfers finishing the 18th green were asked to putt three balls on each of three Salam Seashore Paspalum putting surfaces. Golfers were randomly chosen. Golfers putted downslope on all surfaces tested. The putting surface pedigrees and surveyed golfer profiles are summarized below:

SURVEYED GOLFER-PROFILES:

Of the 30 randomly selected golfers:

- **Sex** — 80% men; 20% women
- **Shots** — 7% shot 70-79; 33% shot 80-89; 40% shot 90-99; 13% shot 100-109; and 7% shot over 110.
- **"Normal" scores for these golfers were** — 70-79 = 10%; 80-89=43%; 90-99=33%; 100-109 = 7%; and 110+ = 3%
- **Played on this course frequency** — first time: 10%; 6-10 times in last two years: 3%; 11-20 times in last two years: 10%; and over 20 times in last two years: 77%.
- **Golfer age** — 46-59: 20%; over 60: 80%

Salam Putting Surface "A" — mowed: .135 inches, topdressing, Primo.

Stimpmeter speed on Sept. 17: 7.1 feet. Visual quality on Sept. 17: 8 (9 = best.)

Stimpmeter speed on Sept. 26: 8.9 feet (downslope component = 9.7 feet).

Golfer preference: 17 percent preferred this surface over the other two Paspalum surfaces. Forty percent of those preferring this surface thought it was better than the Tifeagle in-play greens; 40 percent thought it was equal to the Tifeagle in-play greens.

Salam Putting Surface "B" — mowed: .120 inches, Primo. Stimpmeter speed on

Sept. 17: 8.8 feet. Visual quality rating on Sept. 17: 7.5. Stimpmeter speed on Sept. 26

= 11.6 feet (downslope component = 15.1 feet). Golfer preference: 70 percent preferred this surface over the other two Paspalum surfaces. Fifty percent of those preferring this surface thought it to be better than the in-play Tifeagle greens; 50 percent thought it was equal to the Tifeagle in-play greens.

Salam Putting Surface "C" — mowed: 120 inches, verticutting, Primo. Stimpmeter

speed on Sept. 17: 10.2 feet. Visual quality rating on Sept. 17: 6, Stimpmeter speed on 9/26:

10.3 feet (downslope component: 12.9 feet). Golfer preference: 13 percent of golfers preferred this surface over the other two paspalum surfaces. Of those preferring this surface, 25 percent thought it was better than the Tifeagle in-play greens. 50 percent thought it to be equal to the Tifeagle greens.

Tifeagle in-play greens — Stimpmeter speed on Sept. 17: 9.1. Visual quality rating: 8.

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For all cultural treatments, Stimpmeter speeds were slowest at 10:30 a.m., fastest at 3 p.m. and in the middle at 6:15 p.m. The day was sunny and moderately windy. Mowing height reduction from .135 inches to .120 inches provided a 20 percent increase in speed. Salam mowed at .120 inches the use of Primo Maxx and verticutting had speed slightly in excess of the in-play Tifeagle green (mowed at .135 inches).

For speed and visual quality, Salam mowed at .120 inches with Primo Maxx produced the most favorable numbers. In most cases, topdressing did not appear to significantly increase Stimpmeter speeds (See Table 1).

On Sept. 26, 30 golfers completing the 18th green were selected at random to putt three balls on each of three different Salam putting surfaces. All golfers selected filled out a brief survey along with rating the three selected Salam surfaces to each other and to the Tifeagle green they had just exited.

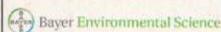
One of the three Salam surfaces was select-

The dilemma for Perdido Bay Golf Club is whether to decontaminate their Tifeagle greens of Salam or to convert the course into a 100 percent Salam facility.

ed as "best" by 70 percent of the golfers surveyed. Golfers rated this surface as superior to the in-play Tifeagle greens 50 percent of the time and as equal to the Tifeagle greens 50 percent.

On Oct. 2, a second group of 30 golfers randomly selected after completing the 18th green were selected to putt six balls on each of three different Salam putting surfaces. Although the demographics of the golfers surveyed along with the survey technique were slightly different than in the Sept. 26 survey, the results of both surveys were similar.

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QUICK TIP

For fast disease-control efficacy at very low rates, use Compass™ fungicide to control brown patch, anthracnose, leaf spot and gray leaf spot, among other turf diseases. A broad-spectrum strobilurin fungicide, Compass™ has a mesostemic mode of action, delivering the value of a contact with the power of a systemic.

SECOND ROUND — GOLFER PREFERENCE SURVEY

Stimpmeter speed on Sept. 26: 8.7 feet (downslope component: 9.7 feet) at a .135 inch mowing height.

Perdido Bay Golf Club, Paspalum Speedup Study

On Oct. 2, 30 golfers completing golf on the 18th green were asked to putt six balls on each of three different Salam Seashore Paspalum putting surfaces. Golfers were randomly chosen. Golfers putted both downslope and upslope on all surfaces tested. The putting surface pedigrees and surveyed golfer profiles are summarized below:

Salam Putting Surface "A" — Mowed: .135 inches (no other treatment). Stimpmeter speed on Oct. 2: 7.5 feet (downslope component = 8.2 feet). Golfer preference: 27 percent preferred this surface over the other two Paspalum surfaces. Sixty-three percent of those preferring this surface thought it was better than the Tifeagle in-play greens; 25 percent thought it was equal to the Tifeagle in-play greens.

Salam Putting Surface "B" — Mowed: .120 inches, Primo, topdressing. Stimpmeter speed on Oct. 2 = 10.7 feet (downslope component=14.8 feet). Golfer preference: 67 percent preferred this surface over the other two paspalum surfaces. Forty-five percent of those preferring this surface thought it to be better than the in-play Tifeagle greens; 50 percent thought it was equal to the Tifeagle in-play greens.

Salam Putting Surface "C" — Mowed: .120 inches, verticutting Stimpmeter speed on Oct. 2 = 10.3 feet (downslope component: 12 feet). Golfer preference: 6 percent preferred this surface over the other two paspalum surfaces. Of those preferring this surface, 50 percent thought it was better than the Tifeagle in-play greens, while 50 percent thought it was equal to the Tifeagle greens.

Tifeagle in-play greens — Stimpmeter speed on Oct. 2 = 9.6 feet (downslope component: 9.8 feet at a .135 inch mowing height).

SURVEYED GOLFER- PROFILES:

Of the 30 randomly selected golfers:

- **Sex** — 100% men
- **Shots** — 13% shot 70-79; 30% shot 80-89; 40% shot 90-99; 17% shot 100-109.
- **"Normal" scores for these golfers were** — 70-79 = 13%; 80-89=47%; 90-99=37%; 100-109 = 3%.
- **Played on this course frequency** — first time: 10%; 1-5 times: 37%; 6-10 times in last two years: 3%; 11-20 times in last two years: 3%; and over 20 times in last two years: 47%.
- **Golfer age** — under 30: 10%; 31-45: 3%; 46-59: 37%; over 60: 50%

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Future activity

Perdido Bay superintendent Bill Herring decided to continue many of the cultural practices on the Salam green to assess their impact on the onset and duration of dormancy.

This trial green along with all in-play Tifeagle greens will not be overseeded. The trial green has now gone through the winter of 2003/2004 with almost no differences between treatments noted. Relatively mild winter temperatures were responsible for the Salam trial green not attaining full dormancy, while the in-play Tifeagle greens did reach full dormancy.

A light outbreak of dollar spot hit the trial green in mid-February, but no treatment-based differences in disease severity were observed. Herring observed that the lower-mowed Salam came out of semidormancy several days sooner than the higher mowed areas, this happening in the middle of March 2004.

Discussion

If one were to consult only Table 1, it would appear that on the basis of both speed and turf (visual) quality, Tifeagle outperformed Salam, regardless of Salam treatment routine. Yet it's clear from the golfer surveys conducted that Salam treatments did make a difference as to customer preference and that the best treatments compared favorably to customer opinion of Tifeagle in-play greens.

Will the Salam treatments responsible for best customer reviews be able to be maintained on a long-term basis? Do we trust formal (technical) measurements of putting green speed and quality as the primary means of attending to customer desires, or do we find a way to account for customer preferences into any turf management program? Each superintendent will have to make that decision based on conditions at his or her course.

Healy owns and operates a turfgrass disease diagnostics laboratory and consulting service in the Southeast.