



Ultradwarf Bermudagrasses Meet the Real World (Part 3)

TifEagle: Make Sure You Have a Good Mechanic and an Extra Set of Bedknives

(Editor's Note: This is the third installment in a series of in-depth looks at real-world management of the new ultradwarf bermudagrasses.

At Pelican Sound: Loses Aesthetics, Retains Playability During Cold Weather

BY RANDY KORF

Golf Course Superintendent

Routine Cultural Practices

Mowing

We use Toro 3100 Triplex mowers daily with Wiehle front rollers and smooth back rollers. The height of cut is .125 inch, and has not been changed since January.

We also use Toro 1600 26-inch walk mowers from October through April for perimeters. Their height of cut is set to .115 inch to match triplexes. We will raise if perimeter is stressed. The reels are ground every 25 hours or sooner if needed. Bed knives are ground two or three times, then discarded (tournament thin bed knives). Primo growth regulator has not been used.

Verticutting

We use Toro triplexes with verticut reels. We go a minimum of every two

weeks, or weekly if needed, and the perimeter if needed. Depth is typically 1/4 inch but will back off to 3/16 inch from December to April. We verticut in two directions at 1/8 inch. This produces great speed and true roll. Vertigrooming has not been effective. Traded in groomer reels for second set of verticut reels. Frequent verticutting eliminates all grain.

Topdressing

A Vicon spreader is used for light applications although I think a Terra Topper would be better. A Meter-Matic is used after aerifications. We topdress a minimum of every two weeks after verticutting, sometimes weekly but only after verticutting. The sand/soil mix is same as construction material (90/10). A drag brush is used followed by an irrigation syringe.

Fertility Program

Granular products 10-2-20 and 0-0-30 are alternated every two weeks, and applied after verticutting/topdressing. Liquid products 12-0-0 with minors or potassium nitrate and a chelated minor product are alternated between granular applications. Humate is applied twice a year. Gypsum is applied every 6-8 weeks at 10 lb/1,000 sq. ft.

Overall, TifEagle has performed even better than I expected. Response has been favorable regarding the quality of the putting surface... I cannot say that TifEagle is a better choice than FloraDwarf or Champion, but I can say that I cannot ever go back to Tifdwarf.

Aerification

We use a contract aerification service. They use Coremaster aerifiers. Our schedule:

June, 5/8-inch tines at 1.75-inch depth

July, 1/2-inch tines at 1.75-inch depth

August, 5/8-inch tines at 1.75-inch depth

September, 1/2-inch tines at 1.75-inch depth

The cores are collected and topdressing applied. A greens spiker with 1.5-inch solid tines on a drum is used from October to May. This does not disrupt the putting surface.

Irrigation Practices

We have a Rain Bird Maxi Nimbus II control system. A typical schedule applies .2 inches of precipitation daily. We typically apply .5 inches of precipitation after topdressing/fertilizing.

When hydrophobic conditions arise (frequently from March to May) a granular wetting agent is applied. Then the irrigation schedule is adjusted to a 6-minute cycle/30-minute soak and repeated for two or three total cycles.

General Comments

Contours: We see slight scalping on slopes over 2 percent, but verticutting is

Correction

In the Superintendent Journal section of the Fall 1999 issue, the FloraDwarf article titled Ponte Vedra Inn should have been titled The Forest. The author of that material was Rick Tatum and not Jay Reister. Don't ask me how I did that one! JJ

TifEagle Establishment/Grow-in at Pelican Sound

(Greens had 100% coverage at week number 5)

IRRIGATION

Week 1—Every hour 7 a.m. to 6 pm
8 minutes per head

Week 2—Every 2 hours 7 a.m. to 6
p.m. 8 minutes per head

Week 3,4—3 times per day 8
minutes per head

Week 5—Once a day with about .2
inch precipitation rate

FERTILITY

Week 1—Milorganite (.5 lb N) then
ammonium sulfate (.5 lb N)

Week 2—D.A.P. (1 lb P) then
complete fertilizer (.5 lb N)

Week 3,4—Alternate ammonium
sulfate/complete fertilizer (.5 lb
N)

Week 5—Alternate use of 10-2-20 (1
lb N) and 0-0-30 (1 lb K) every
two weeks, with liquid
application in between.

ROLLING

Week 2—Roll two directions

Week 3, 4, 5—Roll one direction
each week

MOWING

Week 3—Walkmow at .200" then
.175"

Week 4—Walkmow at .150" twice

Week 5—Walkmow .150" every
other day

Week 6—Triplex .140" daily

Week 12—Triplex .135" daily (later
dropped to .125")

TOPDRESSING

Week 6—Topdress lightly

Week 8—Quadra-tine aerify, drag in
cores

Week 10—Topdress lightly

Week 12—Quadra-tine aerify, drag in
cores

TifEagle Grow-In Program at Jupiter Island

JULY 1998

- 9 Apply 10-10-10 pre plant fertilizer
to Group 1 greens (holes
1,2,5,6,7,8 and 9)
- 10 Sprig Group 1 greens
- 15 Fertilize Group 1 greens with 10-
10-20, setting "K."
- 20 Walk verticut Group 1 greens and
roll with 1 ton roller.
- 21 Fertilize Group 1 greens with
D.A.P. (Di-ammonium Phosphate),
Setting "L."
- 24 Fertilize Group 1 greens with 10-
10-20, setting "H."
- 27 Fertilize Group 1 greens with
AmSO4 (Ammonium Sulfate)
- 30 Walkmow Group 1 greens at .170
inches. No buckets.
- 31 Fertilize Group 1 greens with 10-
10-20, setting H."

AUGUST 1998

- 3 Walkmow Group 1 greens (.170").
Fertilize with 12-0-2, setting "H."
- 4 Spiked Group 1 greens and rolled
with Jacobsen Triplex rollers
- 5 Walkmow Group 1 greens (.170")
- 6 Spiked Group 1 Greens. Applied
pre plant fertilizer 10-10-10 to
Group 2 greens (holes
3 & 4 and 10-18)
- 7 Walkmow Group 1 greens (.170")
and fertilize with 13-4-13. Sprayed
with Battle.
- Sprig Group 2 greens.
- 10 Verticut and mow (.160) Group 1
greens with triplex. Topdress.
- 11 Fertilize Group 1 greens with 12-
0-24.
- 12 Walk verticut Group 2 greens (2x)
and roll with one ton roller. Spike
and triplex roll Group 1 greens.
- 13 Fertilize Group 2 greens with
D.A.P.
- 16 Fertilize Group 2 greens with
AmSO4.
- 17 Triplex verticut Group 1 greens
(2x). Topdress with walking
topdressers. Fertilize with 12-0-24
- 19 Spike all greens (1x)
- 20 Fertilize all greens with 10-10-20
- 24 Verticut all greens. Walking
topdresser. Fertilize with 12-0-24
- 26 Roll Group 2 greens with one ton
roller. Mow Group 1 greens (.140)

- 27 Spike Group 2 greens (2x)
- 29 Sprayed all greens with Eco-N
and 8% Fe (Iron)
- 31 Verticut, Topdress and fertilize
Group 1 greens

SEPTEMBER 1998

- 1 Roll Group 2 greens with one ton
roller
- 2 Spike Group 1 greens (4x) and roll
with Salsco roller
- 3 Hand spread weak areas on Group
1 greens with Milorganite
- 4 Fertilize Group 2 greens with
Milorganite
- 8 Fertilize Group 2 greens with
AmSO4
- 9 Aerify Group 1 greens and roll
with one ton roller
- 10th Fertilize Group 1 greens with
13-4-13. Walk topdress all greens
1-18. Sprig putting green.
- 11 Spray all greens Eco-N, Eco Mix,
minors, and Battle
- 12 Fertilize Group 2 greens with 10-
10-20
- 13 Group 1 greens now puttable
- 14 Mow Group 1 - everyday now
- 15 Triplex verticut - Group 2 (2x),
Group 1 (1x). Walk topdress
Group 2 and fertilize with 10-10-
20. Roll with one ton roller.
- 17 Spike Group 2 (1x). Fertilize
Group 1 with 0-0-26 and Group 2
with 10-10-20
- 21 Fertilize Group 2 with 10-10-20.
Spike Group 1 (1x) and fertilize
with 13-4-13
- 22 Triplex verticut and walk topdress
Group 2
- 23 Fertilize Group 2 with 13-4-13
- 29 Spray all greens with minors, Eco-
N and Battle
- 30 Triplex verticut Group 2 greens
and top dress

OCTOBER

- 1 Mow Group 2 greens at .125
- 5 Begin regular maintenance on all
greens. Mow every day. Light
verticut and topdressing. Split
fertilizers between 13-4-13 and 0-
0-26.
- 26 Open golf course

more likely to thin the turf on those areas.

Greens construction: Modified USGA greens, no gravel, 90/10 Canadian peat mix, no preplant, sprig rate 20 bushels/1,000 sq. ft.

Overall performance:

Drought tolerance is high; when localized dry spots develop, the greens get mottled and "ugly," but it's aesthetic only, and they recover without turf loss.

Cloudy, rainy periods can cause thinning of turf on slopes and perimeters, but verticutting is a contributing factor. Daconil and Mancozeb are used to prevent/treat algae on weak areas.

TifEagle goes off color during cold snaps, turning a mottled yellow followed by purple color, which fades with a return to warmer weather.

Ball roll is excellent, with good speed and true roll. Desired green speed is easily attained and maintained, provided that the mowing height is .125 or less, verticutting is frequent, and nitrogen use is limited to prevent excess growth.

Budget factors (fertilizer, sand, pesticides) are similar for maintenance of Tifdwarf, although equipment needs are higher, maintenance of equipment is more intensive, and labor to maintain the greens is higher.

Some of the specific problems at Pelican Sound include thatch accumulation, which has been significant, especially compared to Tifdwarf. TifEagle has a 3/4-inch layer of thatch or mat or "biomass." Whatever it's called, it is a frightening aspect of the grass, and causes the localized dry spots and hydrophobic conditions because water just can't get through that layer.

Fairy rings have been a problem as well, but that is probably not associated with the grass type.

Using the Toro Hydroject caused severe scalping of uneven ridges which resulted from the weight of the machine and the softening of the aerification; height of cut would have to be raised following its use. Ideally, the greens could be walkmowed at .125 or less; it's difficult to consistently get the best quality of cut at that height with the triplex.

Overall, TifEagle has performed even

better than I expected. Response has been favorable regarding the quality of the putting surface, even though aesthetically the greens do not have a lush bright green appearance due to our maintenance practices of verticutting, low height of cut, and low rates of nitrogen. I cannot say that TifEagle is a better choice than FloraDwarf or Champion, but I can say that I cannot ever go back to Tifdwarf.

At Jupiter Island: Extremely Dense and Sensitive to Shade; Slow to Heal

BY ROB KLOSKA

Golf Course Superintendent

Establishment/Grow-in Program

I highly recommend sprigging at 30 bushels per 1,000 sq. ft. to facilitate grow-in. We also had a mixture of Nitroform and coated potash incorporated into the greens mix.

This helped tremendously to push the greens. After sprigging we waited approximately 10 days and began verticutting and rolling with a one-ton roller.

Five to seven days after that we started cutting with walk mowers set at .175 inch. After two weeks we lowered the height .010 every week until we reached .125 inches. (*See sidebar for complete grow-in program*)

Routine Cultural Practices

I recommend using walk mowers all year. We used grooved rollers in warm weather and solid rollers in the cool season. Our height of cut for the winter golf season is .110 to .125 inches and we raise them to .125 to .145 in the summer especially when we have cloudy and wet weather conditions. We maintain stimpmeter readings of 9.0.

We do less actual verticutting and more brushing and grooming to manicure the surfaces. We topdress every week. During the winter season we use dry bagged sand spread with Lesco rotary spreaders. In the summer we use a Vicon spreader with the fertilizer spout.

The turf is so dense that water has a hard time penetrating... The grass grows vertically more than Tifdwarf. Seems slower to heal over. Suggest you have a large turf nursery for repairs. Watch out for root rot and Helminthosporium when the tropical season is active.

Our fertility program consists of foliar applications all winter of 28-0-0 Coron, monopotassium phosphate, and Regal Maxi-Green. In the summer we apply 13-4-13 with Nutralene at .5 to .75 pounds per 1,000 sq. ft. per month and 0-0-30 at 1.0 lbs per 1,000 sq. ft. per month. I am experimenting with a Grigg Brothers product in weak shaded areas.

I recommend a monthly core aerification during the summer months with small hollow tines. In the winter we aerify with a Toro Hydroject. We spike almost every week.

Irrigation: I try to dry out the green's cavity. Then water heavily to promote the root system.

General Comments

The turf is so dense that water has a hard time penetrating. It is extremely sensitive to shade. The grass grows vertically more than Tifdwarf. Seems slower to heal over. Suggest you have a large turf nursery for repairs. Watch out for root rot and Helminthosporium when the tropical season is active. And last, you must have a good mechanic and extra sets of bed knives.