

Miami Dolphins Training Facility Practice Fields Triumph as STMA's 1998 Football Field of the Year

by Bob Tracinski

Triumph over challenges. That is what earned the Miami Dolphins Training Facility practice fields of Davie, FL, STMA's 1998 Football Field of the Year honors in the Professional Category. That is what has kept the fields in top condition through 1999.

Casey Gifford, Head Groundskeeper,

and Edwin Lamour, Assistant Groundskeeper, are the Grounds department. They are responsible for the two football fields—4.5 acres of playing surface. They also maintain all landscaping on the 9-acre property, including more than 30 palm trees, 800 feet of ficus hedge, and 700 square feet of flower beds.

"Our fields withstand the ultimate punishment by servicing a professional football team with several 300-plus

pound bodies ripping at the surface six days per week for six straight months," Gifford said. "Field demands are no less stringent early in the year, beginning with corporate sponsor events; flag football camps; the regional punt, pass and kick competition finals; and high school football clinics. By mid-March, the pro players begin their off-season conditioning program consisting of sprinting, agility drills, and circuit training four days per week. That program runs through the start of Training Camp in mid-July and is interspersed with three mini-camps. For the main Training Camp in July and August, the entire team is assembled for full days of meetings and two-a-days (90-minute on-field practices, twice a day).

"By then we're into the full schedule of practices for pre-season games, followed by the regular season and the playoffs. When the Super Bowl is in Florida, we're the host practice site for the AFC champs. Our biggest downtime comes in February, which is the end of football season. That's our major window for renovation," Gifford commented.



STMA President Steve Guise (left) presents the 1998 Football Field of the Year, Professional Category to Casey Gifford, Head Groundskeeper. Also pictured (l to r) Edwin Lamour, Assistant Groundskeeper and John Davis, Director of Engineering and Maintenance.



Opening day of Camp Dolphins 1998. The official training camp of the Miami Dolphins in July.

Prescription Athletic Turf (PAT)

The facility was originally constructed in 1993 with a Prescription Athletic Turf (PAT) system and was sprigged with bermudagrass.

Gifford started as Assistant Groundskeeper in 1993, in time for the field grow-in, after earning his Associate of Science in landscape technology from Broward Community College. He was promoted to Head Groundskeeper in January, 1998. He's currently pursuing a BS degree in turfgrass science from the University of Florida in Davie.

Lamour became Assistant Groundskeeper in March, 1998, moving over from Pro Player Stadium with experience in NFL game preparation and from working the World Series with the Florida Marlins.

"Due to several flaws in the original installation (prior to our tenure) that resulted in drainage problems, we were forced to re-install an entirely new PAT

system in 1997. The Motz Group installed the current system. A plastic barrier covers the native soil subsurface. The drainage and irrigation pipe network was placed over the barrier and covered with 12 inches of a pure sand profile. It is a very coarse silica sand, which conforms to the USGA root zone sand recommendations, and is imported from Ortona, FLA. This was topped with standard-cut Tifway 419 bermudagrass sod that was grown on a native sandy soil," Gifford explained.

"The PAT system can be operated manually or automatically. In the auto mode, the computer constantly monitors the moisture level in the sand profile. If the level is too low, the subirrigation will activate. If the water level is too high, the gravity valve will open and allow water to drain into the pipes and off the field. If the water level continues to rise, the gravity valve will close and the vacuum pumps will accelerate drainage off the field and into a canal adjacent to the fields," he continued.

The irrigation system consists of 10 zones on triangular spacing with eight Hunter I-40 heads per zone. All zone valves are located together in the pump station. Two 25-hp pumps are controlled by a variable frequency drive (VFD) system to provide the minimum amount of electricity required to satisfy the demand. Three quick coupler locations on the field allow for hand watering when necessary. A fresh water canal adjacent to the facility is the water source.

A sloped area of turf on the native sandy soil between the building and back of the endzone was not included in the PAT system and had caused problems both with runoff from irrigation water and rainfall and with hydrophobic conditions.

"In 1998 we coped with the situation by spraying a wetting agent every two weeks to increase water absorption. We also used our aerator's slicing blades to break apart the top surface to allow better oxygen levels for the roots and to promote stolon growth. Once the season was over, we installed an additional irrigation zone in that area using landscape heads that are closer on center and only spray 20 feet. Now we can run that zone by itself to control conditions and not interfere with the playing field moisture levels," Gifford commented.

Battling the Rain

In 1999, battling the rain was Gifford's top challenge. He keeps extensive records of weather conditions and maintenance procedures, and had logged 66

inches of rainfall between January 1 and November 3. "We need to balance moisture levels with evapotranspiration rates," he said. "In the summer months, 20 minutes of morning irrigation will have dissipated by afternoon. In the winter months, 3 minutes of irrigation could stay around for a week."

Then there is the hurricane season. Gifford and Lamour are joined by the three-person Engineering and

Maintenance staff in preparations when the hurricanes are bearing down. The regular maintenance schedule, including mowing and field painting, keeps going during hurricane preparations. If the storms do not hit, the team will practice as usual.

This year, tropical disturbance Irene became Hurricane Irene overnight and dropped 15 inches of rain in 3 days. Hurricane Floyd posed a great threat to



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Casey Gifford, Head Groundskeeper, spraying micro-nutrients with a Smithco Sprayer.



Edwin Lamour, Assistant Groundskeeper, mowing the playing surface.

south Florida until it turned north, away from the Florida coast. Because of the threat, all pre-hurricane precautions had to be instituted.

"We know the drill pretty well by now and have developed a checklist to follow. We have one goal post on the facility. We take the bolts out of the gooseneck and lay it down on its side so can't bend and be damaged or cause damage. There are windscreens on all our fences to keep our practices closed. We take them all down and tie them to the bottom of the fences so the force of the winds won't blow the fences over. We bring in anything

throughout the facility that could be whipped around: signage, trash cans, ashtrays, everything. We turn off the VFD pumps to protect the electrical control systems," Gifford said.

"Because hurricanes bring power outages, we put our PAT system drainage control panels in a manual position locked into gravity flow. What we have to avoid is having the system locked in a closed position during the heavy rains. While drainage isn't as fast in the gravity flow position as it would be with the vacuum system operating, it does allow the fields to drain without the operation

of the computerized central panel. During Hurricane Irene we were able to pump off the excess water. All the news helicopters flying over Davie reported the Dolphins training camp was the only dry spot in south Florida," he explained.

Excessive rainfall adds to the fertility challenge of the sand field. Gifford takes soil samples at least every two months and uses the results as the basis to supplement any nutrients that are low. Following the Motz Group's recommendations, he applies 50 pounds of dolomitic limestone per 1,000 square feet of the playing surface every two months

Maintenance Program

January: Mow 2 to 3 times per week, paint fields each Tuesday.

February: Verticut in two direction, core aerate and remove cores; topdress with 150 tons of #200 trap sand; fertilize with 15-5-15 at 1.5 pounds of N per 1,000 square feet.

March: Mow 4 to 5 times per week; fertilize with 15-5-15 at 1.5 pounds of N per 1,000 square feet.

April: Verticut in two directions, mow 4 to 5 times per week, paint fields for Quarterback School I, fertilize with 15-5-15 at 1 pound of N per 1,000 square feet, apply liquid micromix.

May: Core aerate and remove cores, mow 4 to 5 times per week, spray Orthene for mole crickets, paint fields for Quarterback School II, fertilize with 15-5-15 at 1 pound of N per 1,000 square feet, apply dolomitic limestone at 50 pounds of product per 1,000 square feet.

June: Verticut in two directions, mow 5 to 6 times per week, spray for Pythium with Subdue Maxx, apply mole cricket bait, paint fields for Quarterback School III, fertilize with 15-5-15 at 1 pound of N per 1,000 square feet, apply liquid micromix, apply 18-46-0 + at the rate of 1 pound of N per 1,000 square feet.

July: Core aerate and remove cores, topdress with 50 tons of #200 trap sand; mow 5 to 6 times per week, paint fields every 4 to 5 days, spray for pythium with Subdue Maxx, spray Orthene for mole crickets, fertilize with 15-5-15 at 1 pound of

N per 1,000 square feet, apply dolomitic limestone at 50 pounds of product per 1,000 square feet.

August: Verticut, mow 5 to 6 times per week, paint fields every Tuesday, apply mole cricket bait, fertilize with 15-5-15 at 1 pound of N per 1,000 square feet, apply liquid micromix.

September: Core aerate and remove cores, mow 4 to 5 times per week, paint fields every Tuesday, fertilize with 15-5-15 at 1 pound of N per 1,000 square feet, apply dolomitic limestone at 50 pounds of product per 1,000 square feet.

October: Verticut, topdress with 50 tons of #200 trap sand, mow 4 to 5 times per week, paint fields every Tuesday, fertilize with 15-5-15 at 1 pound of N per 1,000 square feet, apply liquid micromix, apply 18-46-0 + at the rate of 1 pound of N per 1,000 square feet.

November: Aerate with slicing blades, mow 4 to 5 times per week, paint fields every Tuesday, fertilize with 15-5-15 at 1 pound of N per 1,000 square feet, apply dolomitic limestone at 50 pounds of product per 1,000 square feet.

December: Aerate with slicing blades, mow 4 to 5 times per week, paint fields every Tuesday, fertilize with 15-5-15 at 1 pound of N per 1,000 square feet.

Note: Mowing height is always 7/8-inch; clippings are always caught.

to keep adequate calcium and magnesium levels. The field's normal pH of 7.5 generally stays at that level and never varies above 8 despite these applications.

The Maintenance Program

Playability is the prime consideration in Gifford's maintenance program. Clippings are caught at each mowing to control thatch levels and provide the best drainage conditions. In topdressing, #200 sand is used to match the soil profile. Early in the season, core aeration is used at a 4-inch depth to penetrate the sod layer. Plugs always are collected to eliminate contamination. Late in the season, coring switches to slicing to provide the necessary gas exchange without the risk of surface instability as turf growth rates slow.

Another key challenge in 1999 came with hosting the Denver Broncos for Super Bowl practices, but Gifford and Lamour do a great job of prioritizing their schedules and remaining flexible, so they took it all in stride. To provide optimum conditions, they overseeded the

fields in early January with a perennial ryegrass blend at the rate of 15 pounds per 1,000 square feet. They put down the same blend used in the regular overseeding program, pre-treated with fungicide as usual to avoid Pythium problems. Their first overseeding generally comes in late October or early November and is repeated periodically, at least in the center of the fields, until the end of the team's season.

The late application put a strong stand of ryegrass in place at the point of transition back to bermudagrass. "Average winter temperatures here are 75 degree highs and 65 degree lows so bermudagrass doesn't reach true dormancy. In the cooler weather it grows at a slower rate and stays green, but goes off color. Our regular practice of withholding water to force transition didn't phase the ryegrasses but, by March, with the temperatures rising, the bermudagrass was beginning to brown. We had to use a herbicide to knock out the perennial ryegrasses and then baby the bermudagrass to get the turf up to our standards," Gifford said.

Attention to detail is another maintenance program highlight. Gifford and Lamour walk the fields after every practice session, repairing divots and monitoring conditions. "All of our coaching staff is terrific to work with. They're very cooperative about moving drills to different areas of the fields to avoid excessive wear. We basically divide the fields into four quadrants, and they rotate use by concentrating action in one quadrant during a practice session and moving to another quadrant for the next practice," Gifford commented.

Obviously, Gifford knows the fields well. He strives for perfection, seeking fields that look and perform better each year than the year before, and relishing the challenges of making that happen.

Bob Tracinski is the Business Communications Manager for the John Deere Worldwide Commercial & Consumer Equipment Division headquartered in Raleigh, NC. He serves as public relations co-chair for the national Sports Turf Managers Association.



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