

## **Good greens require hard work, time and money**

Golfers are a tough crowd to please. They play an average of 44,000 rounds of golf each year on each Florida golf course, said a University of Florida turfgrass science professor, and they expect no less than perfect greens, every time.

Jerry Sartain, a UF turfgrass nutrition professor, has been teaching techniques in turfgrass nutrition for 31 years. He also advises the UF Turfgrass Club.

“There is a lot of pressure put on grass,” he said, “It has demands from the environment and [the golfing community].”

It takes a lot of knowledge to be able to maintain a golf course, Sartain said. You have to be extremely knowledgeable.

Todd Wilkinson has been the superintendent at UF’s University Golf Course for almost four years. He has a bachelor’s degree in business administration and a two-year degree in golf course management. Wilkinson also has experience assisting management at other golf courses.

“People think all you do is cut the grass,” Wilkinson said, “But there is a lot more to it than that.”

Wilkinson and his team start working most days at 4 am, and sometimes start again after all the golfers go home each night. Every day there is an endless routine of fertilizing, applying pesticide and grass care. Mowing is one of their biggest responsibilities, but even this is a meticulous process

A different type of grass is grown on each part of a golf course. At UF’s course, Tiff Sport Bermuda grass is used for the tees and fairways, Wilkinson said. Tiff Dwarf Bermuda is used for the greens because it is easier to putt on, he said.

Certain spots on the course are very shady, Wilkinson said, and a shade-tolerant grass called Zoysia is needed for these areas.

During the cold months, these warm weather grasses are supplemented with blue grass for the greens and rye grass for tees and fairways to keep the course looking green. Bermuda grasses go dormant and turn brown during the winter, Wilkinson said.

The height of the grass is also carefully measured, he said. The UF course has four different heights ranging from ½ inch for fairways to 1/8 inch for putting greens.

Another important aspect to golf course care is fertilization.

UF plant breeding Ph.d student Brian Schwartz does research in growing turfgrass at UF's Turfgrass Envirotron laboratory.

“You don't want to fertilize in the winter, because a freeze will hurt grass that's really growing,” Schwartz said. “You start fertilizing really heavy [in the spring] to gets things growing again.”

The main elements in grass fertilizer are nitrogen, phosphorus and potassium, Wilkinson said. However, phosphorus is not really needed thanks to the high calcium content in Florida soil.

The UF course combines its fertilizer with a pre-emergent herbicide, to deal with weeds, Wilkinson said. This mixture is applied approximately every 90 days and costs \$14,000.

Wilkinson also has to use post-emergent herbicides for weeds aren't killed by pre-emergent herbicides.

Other afflictions golf courses have to deal with are mole crickets, nematodes and fungi, he said.

“A golf course is a changing environment,” Wilkinson said, “There are lots of factors you just can’t control.”

It is very expensive to anticipate and be prepared for anything that will effect the grass, Wilkinson said.

“Our annual budget is \$ 450,000,” he said. “But that is nothing compared to higher-end golf courses.”

The Gainesville Country Club and the Haile Plantation Golf & Country Club have budgets closer to \$ 700,000 a year, he said.

The equipment needed to maintain a golf course is also a big expense. Wilkinson recently purchased four, used push mowers for the greens, which used up \$12,000 of the annual budget.

“Unfortunately, Jeremy Foley is not a golfer,” Wilkinson said. There is only so much you can do with a limited budget, he said.

The UF course has 18 holes, plus three extra holes for the UF golf team’s private use.

“The course is 100 acres and we maintain 80 of it,” Wilkinson said. It is a relatively small area for an 18-hole and 70-par course.

Water becomes a big issue when growing a wall-to-wall carpet of grass the size of a golf course, Sartain said. Golf courses accept so much water a year from physical plants, he said, it actually does a service to the community.

The UF course has a pond that acts as a holding tank for reclaimed water received from UF’s physical plant and distributes it to 14 different zones, Wilkinson said.

The water used to water golf courses is high in soluble salts and other contaminants, Sartain said. However, once it filters through the grass and soil of a golf course it is much cleaner once it reaches underground aquifers. The reclaimed water not used by golf courses is usually deep-pumped as it is back into the Florida Aquifer.