

“Best overseeded grasses on the putting green were Sabre and Cypress cultivars of *Poa trivialis*”

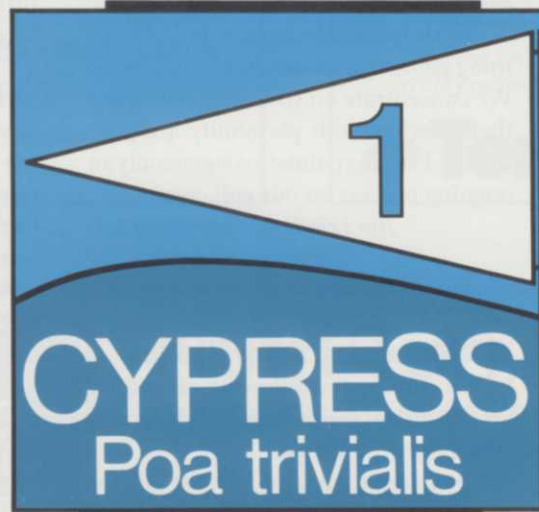
1992 University of Florida Dormant Bermudagrass Overseeding Trial - Gainesville, FL.

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Cypress is available alone, or blended with Creeping Bentgrass and Streaker Redtop Bentgrass depending on customer preference.

Table 2. Monthly and seasonal months for turf quality of winter overseeded grasses on 'Tildwart' bermudagrass putting green from December 1991 to April 1992 at Gainesville, FL.

Turfgrass	Month				Mean
	Dec.	Jan.	Feb.	Mar.	
Sabre	7.8	8.2	8.4	8.0	8.0
Cypress	7.2	7.4	8.4	8.0	8.0
Pinnacle	7.5	7.8	7.3	6.8	7.3
Premier	7.8	7.7	7.1	6.9	7.1
Blend #1	7.4	7.4	7.5	6.5	7.1
Mix #2	7.2	7.6	7.3	6.8	7.2
GH-89	7.8	7.5	7.1	6.9	7.3
Southern Select	7.1	7.1	7.4	7.0	7.1
Mix #1	7.5	7.2	7.6	7.3	7.4
Leader Board	7.4	7.2	7.3	7.4	7.3
Medalist	7.3	7.2	7.3	7.4	7.3
Repell II	7.2	7.2	7.2	7.4	7.3
Essence	7.8	7.5	7.5	7.4	7.5
Cowboy II	7.1	7.3	7.3	7.4	7.3
CBS II	7.5	7.3	7.3	7.4	7.4
Evening Shade	7.3	7.3	7.3	7.4	7.3
Pennant	7.2	7.2	7.3	7.4	7.3
Mulligan	7.2	7.2	7.3	7.4	7.3
Ph.D.	7.2	7.2	7.3	7.4	7.3
Pebble Beach	7.2	7.2	7.3	7.4	7.3
Sunrise Primo	7.2	7.2	7.3	7.4	7.3
Sunrise II	7.2	7.2	7.3	7.4	7.3
Prelude II	7.2	7.2	7.3	7.4	7.3
Alliance	7.2	7.2	7.3	7.4	7.3
Patriot II	7.2	7.2	7.3	7.4	7.3
Turf Seed Blend #1	7.2	7.2	7.3	7.4	7.3
Competitor	7.2	7.2	7.3	7.4	7.3
WXS-1	7.2	7.2	7.3	7.4	7.3
WXS-115	7.2	7.2	7.3	7.4	7.3
WXP-83	7.2	7.2	7.3	7.4	7.3
Turf Seed Blend #2	7.2	7.2	7.3	7.4	7.3
Palmer II	7.2	7.2	7.3	7.4	7.3
Essence	7.2	7.2	7.3	7.4	7.3
Penneagle	7.2	7.2	7.3	7.4	7.3
CEO Blend	7.2	7.2	7.3	7.4	7.3
in-cross	7.2	7.2	7.3	7.4	7.3
Mean	7.8 a*	7.5 ab	7.2 bc	7.2 bc	7.1

We also are on a yearly pine tree inoculation process that was started in 1991 with the assistance of the University of Florida Forestry Department. To date we have inoculated more than 2,000 trees.

wand.

The rate of application of our particular program was 30 pounds of polymer per 150 gallons of water. This gave the solution the consistency of Jell-O before it sets up.

We injected each tree at the drip line six times, completely circling the tree.

A manganese and iron liquid solution was also added at a rate of 10 gallons per 150 gallons of water. This procedure was carried out for three years in a row. The trees are now six years old and continue to thrive. I firmly believe in the use of polymers when doing new landscape installations, and the high quality of the oak trees at Gateway are living proof.

*Michael J. Cantwell, Superintendent
Gateway Golf & Country Club
Fort Myers*

7. Keep it natural

At Pelican's Nest Golf Course, we have a limited amount of maintainable landscaping. The golf course was carved out of a thick oak, pine, and palmetto strand.

Any landscaping that is added are common species for the area. Oaks, pines, wax myrtles are the most commonly used.

We try to keep everything natural on the golf course, and leave the colorful annuals at the clubhouse.

We are on a yearly pine tree replacement program, replacing any trees lost due to lightning or insects. We also are on a yearly pine tree inoculation process that was started in 1991 with the assistance of the University of Florida Forestry Department. To date we have inoculated more than 2,000 trees.

In the summer months, we do an exotic tree and plant removal project. If we are lucky enough to get a permit, we prune our environmentally-sensitive areas during the summer months.

We do spend a lot of man-hours trimming palmettos around tees and greens. We concentrate on trimming palmettos that interfere with playability and aesthetics. Pruning palmettos is generally an ongoing process on our golf course.

*Jim Leiseberg, Superintendent
Pelican's Nest Golf Club
Bonita Springs*

8. Maintaining natural areas

We employ the following procedure for the annual maintenance of our natural areas at The Forest.

Once a year, preferably in the fall, we edge around all of our natural areas with a sod cutter. Painting a line that you can follow with your sod cutter helps to keep things consistent. The purpose for using a sod cutter is to establish an edge, two to three inches in depth, to hold your mulch within the natural area.

Remove all dead debris and prune any vegetation necessary. Spot spray broadleaves and undesirable grasses with Round-Up. Mulch — we use pine straw but any mulching material will do.

Apply preemergent — we use a combination of Ronstar WP at 4 pounds per acre and Gallery at 1 pound per acre. This application will give you approximately 90 days of control on your broadleaves and grassy weeds.

In order to keep a clean edge to our natural areas, we edge them biweekly,

and put new pine straw out twice a year: September and January.

*Rick Tatum, Golf Course Superintendent
The Forest Country Club, Fort Myers*

9. Begins at clearing

Our landscaping plan at Olde Florida Golf Club was initiated the day clearing began on our 220-acre site located in Naples.

The site is extremely wooded with native Florida vegetation. Olde Florida is a nonresidential golf club, which enabled us to construct our golf course with considerably less restriction than a typical residential club that uses the golf course as a means to sell real estate.

There was a concerted effort by all parties involved to remove only what was necessary to establish the 110 acres of turfgrass and excavate the 30 acres of lakes.

There are three predominant plant varieties on the property — bald cypress, cabbage palms and pines. Our goal was to use as much of these existing varieties to frame the golf holes and provide scenic backdrops to as many of the greens and tees as feasible.

Corridors between parallel golf holes were created through *selective* clearing of the underbrush and preserving the native trees. These corridors provide cover for wildlife movement through and across the property as well as add to the tranquil setting.

Another aspect of the construction of the golf course that related to the landscape plan was the design and installation of the irrigation system. The system was designed and installed so that natural vegetation would receive as little irrigation as possible. Numerous part-circle, adjustable heads were installed around the perimeter of the turfgrass, throwing in and away from the wooded surroundings.

Upon the completion of the golf course, phase two of our landscape plan was initiated.

It began with aquatic plantings consisting of soft rush, pickerelweed, and arrowroot on the lake banks that were on the opposing side of the lake from the golf course. These added plants improved the aesthetics of the lake, especially as the



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Pines will provide a natural but dramatic backdrop for this green when they mature.



water table fluctuates.

It also provides increased cover for wildlife.

Another important part of our landscape plan is the protection of our existing trees. Numerous pines that provide backdrops to greens, or those which we considered specimen trees are scheduled for the installation of lightning protection. These pines will also be monitored for symptoms of pine tree decline. Should these symptoms occur, the use of a microinjection system will be used.

Only native plant material such as bald cypress, cabbage palms and pines will be added in areas where additional plant material is needed to frame a golf hole to block an undesirable view.

Olde Florida Golf Club is guided by 20 founding members with a maximum capacity of 275 single members. These individuals are golfers who have joined with a common objective, to play golf. Therefore, we have no intention of planting any annual or perennial flowering material or nonnative vegetation.

We will, however, do our best to encourage the survival and increase the numerous existing natural flowering grasses and shrubs.

Our main goals at Olde Florida were clear and simple. Only remove what was necessary, protect and enhance the re-

Placement is an art form and you "plant to transplant" as trees mature. Note that the cart path soon will be largely shielded from green.

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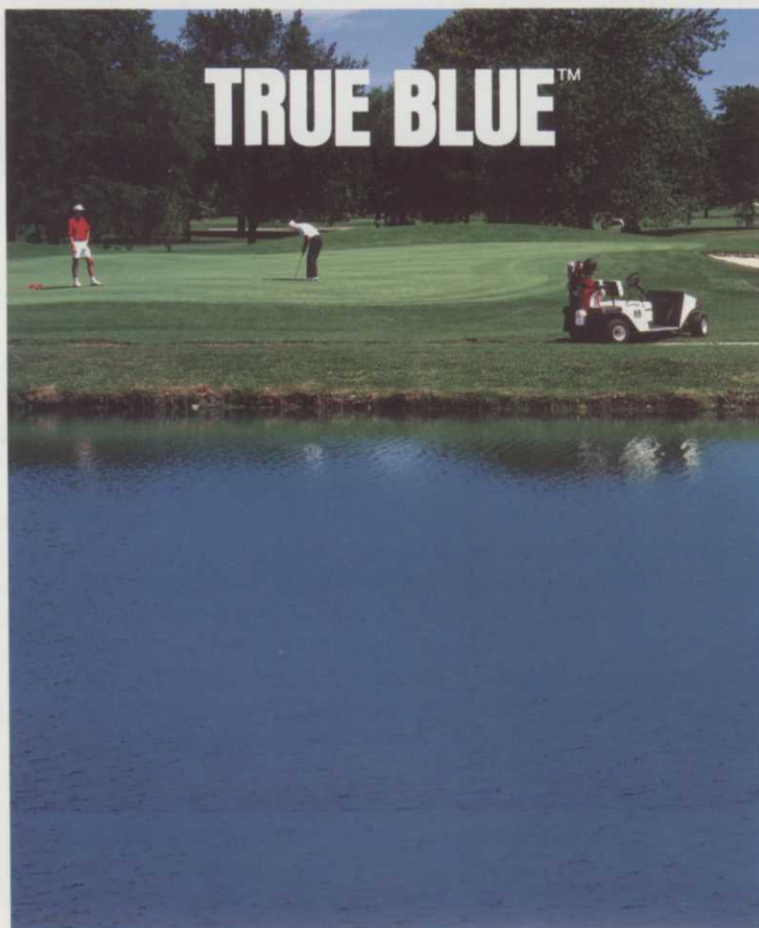
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Aquatic plant communities not only provide beauty to the golfers, but also provide food sources for wildlife as well as cover and nesting sites for the many species of birds that inhabit the course.

maintaining native vegetation and add only currently existing varieties on the golf course if additional material is needed.

Darren Davis
Golf Course Superintendent
Olde Florida Golf Club

10. Tree placement on the golf course

The placement of trees for golf courses has many applications and considerations that should be examined. Due to the limitations of space in this article, we will concentrate on tree placement with respect to shot value and aesthetics. In brief, we will be examining both the physical side of tree placement as well as the psychological side.

Golf course architects have incorpo-

rated trees as strategic objects or focal points, often making use of existing grandfather trees, as a tool in design. Much debate surrounds the use of strategic or “key” trees in golf course design.

Properly placed key trees have become the focal points of some excellent golf holes. Number 17 at Augusta National, with its famed Eisenhower tree, as well as Number 18 at Pebble Beach are just two classic examples of this methodology.

Conversely, could anyone imagine these golf holes without the aesthetically pleasing and often intimidating structures that have made them renowned? Unfortunately, such disasters have been known to occur due to the whims of Mother Nature: disease, insects or injury.

With golf holes missing the vital design trees, shot values are greatly reduced.

Nothing can replace grandfather trees that have perished once a golf hole has been designed around them. Thus the interest level and course rating of the golf course would suffer.

Should you be lucky enough to find an existing (or grandfather) tree where you want to design your hole, by all means make use of it. However, incorporating a contour feature, such as a sand trap or a berm, will save the aesthetic value of the hole should you later lose the tree.

Furthermore, you should avoid planting a new tree solely as the main focal point to turn the hole. Again, making use of a contour feature as well as a permanent aesthetic highlight will redeem the

hole should the tree die. As we are all well aware, it is primarily the responsibility of the golf course superintendent to maintain the aesthetic quality of the golf course.

Jim Larner

11. Fun with flowering trees

Alaqua Country Club is a very wooded site to begin with. My tree program is specifically designed with aesthetics in mind.

Salix babylonica (weeping willow) are used along lake edges for the majestic draping effect. As the willow matures, this effect becomes very dramatic.

Pinuselliotti (slash pine) *Ilex opaca E.P.* (East Palatka holly) and *Gordonia Lasianthus* (loblolly bay) are used in all natural areas, where no turf is present. These trees create an important understory look to complement the large mature trees on property.

Truly, we have the most fun with our flowering tree programs. Throughout the golf course, many variations can be found.

Red bottlebrush (*callistemon viminalis*) are extensively used at the clubhouse. Pink and yellow tabebuissas (*tabebuia argentea* and *pallida*) enhance the boulevard and teeing areas. Dogwoods (*cornus Florida* only) are planted in natural and formal areas, and many different colors of crepe myrtles (*lagerstromia indica*) are planted throughout the property for their multi-color effect.

Steve Wright, CGCS

12. Atlantis G.C.

Flowers and flowering trees: We plant annuals around the clubhouse. We also have annual beds on most tee areas. We use mostly begonias, geraniums and impatiens. We use 4,000 to 5,000 plants.

We have incorporated some flowering trees: yellow and pink tabs, white and pink orchid trees, jacaranda, magnolia, bridal veil and tibouchina. Most of these are used in existing tree stands to add some seasonal color.

Strategic shotmaking: Any key trees that are vital to the play of a shot are given extra care. Any lost trees due to lightning or decline are usually replaced with a quality tree. Other trees are actually a joy to lose if they happen to be a shade problem.



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From manicured grounds to natural vegetation in a three-tiered planting that not only ties in the taller trees in the background, but also quite possibly hides something unsightly — or at least “unnatural” — such as a pump station.

We try to never create any new shade problems by avoiding planting large trees to the east or south of a green or tee or even a fairway.

To enhance turf: By never creating a shade situation with a east or south exposure, we usually enhance turf growth. We also root prune all problem trees like ficus regularly.

Mark Henderson

13. Aquascaping for water enhancement

Tampa Palms Golf and Country Club is constructed within the flood plain of the Hillsborough River in Hillsborough County and the property features many wetland areas. Many of these wetland environments border the golf course and extreme measures are taken to ensure that these areas remain pristine and free from any types of pollutants.

The lakes and ponds at Tampa Palms are all man-made impoundments. Over the past several years, these bodies of water have been planted with aquatic plants native to Florida. These plant com-

munities not only provide beauty to the golfers, but are also providing food sources for wildlife as well as cover and nesting sites for the many species of birds that inhabit the course.

The extensive coverage of the aquatic plants in our aquatic environments fits in well with our goal of preserving the natural beauty of the golf course. Other added benefits of these plants are shoreline erosion control and nutrient runoff absorption.

As these plant communities evolve, less and less lake management has been needed. We still continue to contract out the management of our lakes though, to remove such nuisance invaders as torpedograss, cattails, and ludwigia. We have found that with such a removal program, the desirable native plants can compete with these nuisance species and propagate through both seed and vegetative reproduction.

As one can see, our water enhancement program at Tampa Palms is quite intensive, but at the same time well worth the effort when one considers how ben-

eficial these plant communities are to the golf course. The added beauty and the importance of these plants to the wildlife that abounds on the course are just a couple of the benefits one will receive from such a program.

*Greg Plotner, CGCS
Tampa Palms G&CC*

14. Contrasting landscapes

Quail West Golf and Country Club is a 36-hole development located in Naples. The first 18 holes meander through 540 acres of pines, cypress and cabbage palms, while nine new holes have been built on a former tomato field, which also will be the site of nine more holes.

The original 18 holes did not require a lot of additional landscaping after the golf course was completed. Most of the color and texture differences seen on the course come from mitigation areas.

Mitigation areas are required, “created wetlands” because nine of the 18 holes border protected cypress preserves. Subtle hints of white, yellow, red, purple, and green arise from aquatic plants lo-

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cated within 19 mitigation areas. To round out the landscaping, bougainvillea, coco plum, ferns, wildflowers and ornamental grasses were planted to give hints of color and texture in desired areas.

The nine holes built over the tomato field have provided more of a landscaping challenge. To set apart each hole, over 5,000 trees comprised of oaks, pines and five different types of palms were planted. Around many of the trees, beds were created for additional plantings of color and texture. Bougainvillea, coco plum, firecracker, oleander, plumbago, thryallis, annuals, and ornamental grasses were installed for bursts of color to add to the golfers' enjoyment.

While the landscaping on the first 18 holes almost maintains itself, the landscaping on the other 18 holes requires a more regimented maintenance schedule.

Kevin D. Selsor
Assistant Golf Course Superintendent
Quail West G&CC, Naples

If the above-mentioned writers indicate anything, it would be the wide array of varied programs in use around the state.

Certainly one of the up-and-coming programs is that of providing for the natural environment. We are seeing that the use of indigenous species is becoming increasingly popular for a variety of reasons.

It is encouraging to note that our industry as a whole is demonstrating to the outside world that we are environmentally conscious. That we are taking steps in the design, construction and maintenance of golf courses to ensure the viability and health of the native ecosystem.

As more attention is focused on our industry we can be proud of our efforts to protect and preserve our native environment and at the same time provide golfing facilities our members can be proud of.

At the same time, however, we have within us a feeling for the beauty and

attributes which flowering annuals can add to the enhancement of the golfing experience.

Not only from an aesthetic point of view, but also by creating environmental conditions conducive to the attraction and reproduction of beautiful butterflies, protective bees and other insects which delight their taste buds with the sweet nectar of our beautiful flowers.

I guess the most important and least-appreciated aspect of our landscaping programs is our contribution to the micro-ecosystems which flourish from our labor.

I am proud to be associated with an association which cares deeply about the environment they live and work in. We represent the "true environmentalists."

Not only do we have our convictions and beliefs, but we work diligently to put these beliefs into reality, we practice what we preach and our message is that we can coexist with the "natural" world.

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