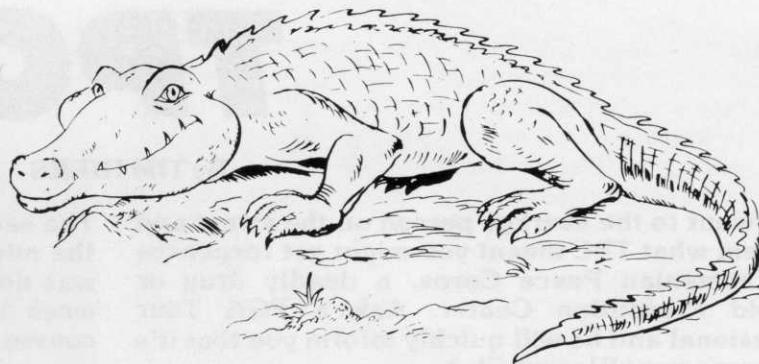


The Gator Growls

By DAN L. HALL, JR.
Imperial Golf Club



Recipe For a Good Superintendent

Five Superintendents from the West Coast were asked to list in order of importance from 1 to 5 pre-requisites of a good golf course superintendent.

Our five superintendents listed these statements as number 1:

- 3 — Replied hands on experience.
- 1 — Said formal education.
- 1 — Stated a prime interest in both golf and grass.

These statements placed 2nd:

- 4 — Answered both education from practical experience and formal education.
- 1 — Said practical experience along with knowledge gained from schooling, other superintendents, meetings and reading up to date material.

These statements placed 3rd:

- 3 — Replied keeping up by reading combined with educational meetings.
- 1 — Answered working on the course for experience.
- 1 — Said getting along with others.

These statements placed 4th:

- 3 — Said working from employee through the ranks under a Superintendent.
- 1 — Answered keeping a good staff of employees.
- 1 — Replied having a good employer interested in both good golf and good turf.

These statements placed 5th:

- 4 — Said a good knowledge of turf and basic agronomics.
- 1 — Replied be a good jack of many trades combined with experience.

Summary:

Notice that except for No. 2 and No. 5, the ratio of opinions is quite diversified. Nearly all placed actual turf knowledge 5th on the list. Education and experience placed as high as the 2nd requirement. Hands on experience was listed most often regardless of placement. Working under a good superintendent from employee through assistant also ranked high.

Being a good business manager wasn't even listed. Having good employees, having good work habits and having a good employer were only listed once each.

We can see that the pre-requisites of being a good superintendent are as varied as golf courses and golf course superintendents. Thanks to those who took the time to complete the questionnaire and make my job of reporting for this issue a little easier. I promised anonymity so names were not mentioned. Thanks again fellows. Next time let's have more replies and greater participation. ■

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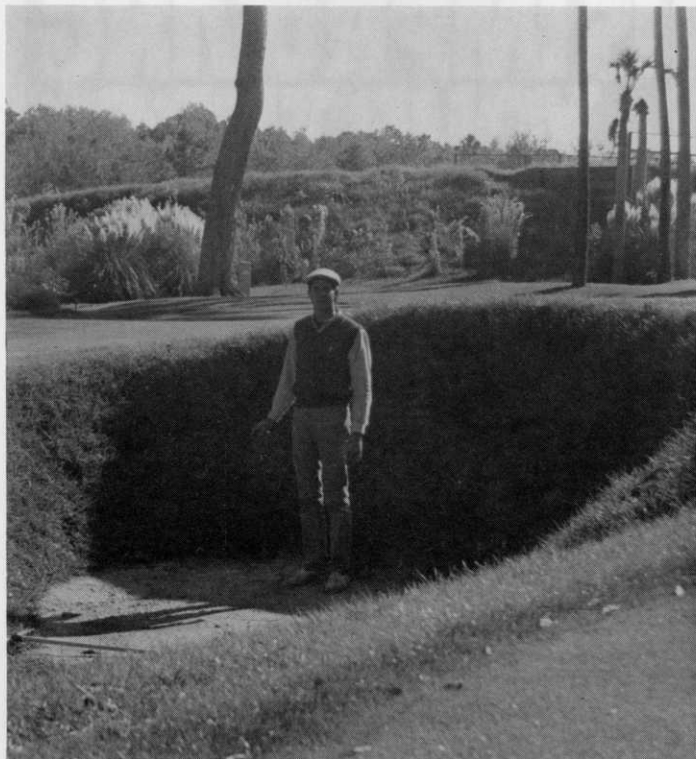
TPC

By TIM HIERS

If you went to the average person on the street and ask them what TPC meant you might get responses like Tasmanian Peace Corps, a deadly drug or Typhoid Prevention Center. Ask a PGA Tour Professional and he will quickly inform you that it's the Tournament Players Club.

Located twenty miles southeast of Jacksonville within the Sawgrass-Arvida Resort Community the Tournament Players Club was built for major tournament golf and for a nationwide membership. Looking at the total property, the course in its natural environment could easily be a spot location to film a jungle adventure. Intertwined among trees and vegetation such as pines, large magnificent live oaks, cabbage palms, trumpet creeper, wax myrtle, scrub palm and broom sage is a golf course that's tough and demanding. Ratings from the gold pro tees are 75 and 72.5 from the blue tees. Other plant growth includes deciduous gum and maple trees along with native yaupon, Confederate jasmine and general miscellaneous North Florida vegetation.

Construction began on the 415-acre site in the spring of 1979 and opened the fall of 1980. The entire property is surrounded by a manmade canal effectively making TPC an island. Greens and tees were sprigged with Tifgreen 328 bermudagrass and winter overseeding consisted of Marvelgreen rufgrass and Saver.



The seed was applied in early October and again in the middle of November. The October application was done to prepare for qualifying school the first week in November. Donny Hammond holds the course record with a remarkable 65.

The greens average approximately 5,000 square feet and combined with trees total about four acres. There are approximately thirty-five acres of Tifway 419 bermudagrass fairways. This is a good indicator of the strict demand on accuracy. The roughs and spectator mounds encompass about sixty-five acres and are a menagerie of grasses such as common bermudagrass, carpet grass, bahamagrass, centipede and lovegrass. Much of the lovegrass grows in native sand to form a beautiful but menacing natural rough. The use of broom sage on slopes and roughs adds a unique flavor of color not found on many golf courses. The first impression of the course aside from its natural beauty is fairly simple — a good shot is usually rewarded, a bad shot can be punished immeasurably.



Every hole has water in the form of lakes, lagoons or canals. These waters hazards can create as much havoc as the dense woods, natural roughs, mounds, traps and native bunkers. For the high handicapper a combination floater-beeper ball would be highly recommended unless he or she is a golf ball representative.

(Continued on page 33)

(Continued from page 32)

Don't be too intimidated by these remarks, for those who play TPC can direct their own destiny (to a limited degree) by the set of the markers they choose to play. During the trip around the course I observed that many were playing from the gold tees, an occurrence that reinforced my opinion of a golfer/masochist relationship. In any event, they seemed to enjoy the environment as much as the golf.

The Tournament Players Club is a culmination of dreams and planning by PGA Tour Commissioner Deane Beman. A former Tour Player, Beman took office as commissioner in March of 1974 and visualized the players having a permanent home course. A course that would host a yearly tournament to test the eminent skills of the tour's top players. Beman wanted something unique and different. In essence, this would be the Players Tournament — a fifth major championship.

To help fulfill this dream Beman collaborated with world renown architect Pete Dye. Dye designed TPC on a tract of land inhabited more by the alligators than golfers. With only 4 feet of elevation above sea level, Dye designed a golf course whose purpose other than providing a home course and tournament for Tour Players was to implement a new concept.



This concept included providing natural spectator mounds (stadium golf) that increase seating capacity hole by hole. The eighteenth hole has a seating capacity of approximately 40,000 spectators. In addition, target golf, meaning tight landing areas and small greens to test the Tour Player's accuracy and mental endurance, would also reduce overall golf course maintenance. Remember this is a *new concept*, not expected to be perfect immediately but to improve through change and modification. After its second tournament the TPC was criticized by some players because they felt good shots were not always rewarded properly and they were not adequately involved with the philosophy and design of their own course. As a result, the Tour solicited the assistance of a Players Committee consisting of Hale Irwin, Ben Crenshaw,

Jack Nicklaus, Jim Colbert and Committee Chairman Ed Sneed. The objective of the committee was to retain the character of Pete Dye's design and not make the course easier but improve it. Their basic strategy was to tighten up the landing areas and redesign greens to make them more receptive to good shots.

Since its origin the Players Committee has been very constructive and helpful. Committee Chairman Ed Sneed has been described by Golf Course Superintendent Bobby Weed as sharp and diplomatic. Weed has worked closely with the Committee and Pete Dye to modify the TPC. It is a process that will take time and patience.

After assuming responsibilities as Golf Course Superintendent on February 1, 1983, Bobby Weed can't seem to find enough time to exert his positive attitude and influence. With the constant change and modifications and the demand for top quality playing conditions, he must draw on his practical expertise and education to manage and operate the TPC. A 1976 Graduate of Lake City Community College where he received a Technical Degree in Golf Course Operations, he also studied two years of business administration at Presbyterian College in South Carolina. His experience prior to TPC included two years apprenticeship under Ron Hill at Pete Dye's Amelia Island Plantation before his firsthand job at Ponce DeLeon Golf Course in St. Augustine, Fla. He managed there for approximately one and a half years.

Bobby Weed's rise to success in the golf management industry accelerated when he accepted the golf course superintendent's job at the Long Cove Club, Hilton Head, South Carolina. It was here that Bobby Weed and Architect Pete Dye developed a relationship that formulates a key ingredient at the TPC. Working very closely with Dye, Weed learned to anticipate and understand the architect's philosophies and desires. His practical experience of building Love Cove Club from the ground up has proven invaluable at TPC. A phone call and conversation with Dye can be transposed into accurate redesign or modification on the golf course. This is a tribute to the communication and friendship that time has nurtured between Dye and Weed.

Bobby Weed has a genuine love for the Tournament Players Club. He enjoys observing the club's real owners that have inhabited the site for many years. Alligators, raccoons, armadillos, water turkeys, fish hawks, owls, great herons, egrets, sandpipers, deer, bobcat, turkeys, turtles and even an occasional bald eagle can be spotted. He addresses most of his programs with the certainty and confidence he will eventually solve them. Drainage for the most part is excellent despite the low elevation. A series of canals around and throughout the property allows water level control. Thanks to good planning, shade is a minimal problem despite a large number of trees.

(Continued on page 34)

(Continued from page 33)

The soil profile consists mostly of sugar sand which aids drainage. During construction muck was excavated and shaped into spectator mounds. This contributed to better drainage.

Among Mr. Weed's significant problems are mole crickets and armadillos tunneling after mole crickets. Heavy play makes maintenance more difficult and the attention to spectator mounds is time consuming. Weed plans to counter this high cost by using growth regulators. With the TPC still a relatively new course, constant modifications and improvements detract from desired manicuring. Bobby Weed is willing to be patient and realizes that time will cure most of these problems.

Future projects at TPC include reseeding spectator mounds with a variety of grasses to shield areas worn by heavy foot traffic. A major project down the road will be construction of another 18 holes to accommodate resort play and reduce heavy traffic on the present course. The new design will probably offer more to resort than play tour standards. Enlarging tees is another item on the future checklist that will allow better distribution of surface wear.

The TPC has an ample maintenance complex that provides excellent facilities for the staff. The crew's lunch and locker rooms are an asset to the club management program.

Since its beginning some articles have been highly critical of the TPC. Bobby Weed feels they are unfair. One recent article published in a southern magazine criticized the budget at the TPC. Weed explains that at the time these people were looking at our budget, its composition included many capital related items. For example: 1. Re-design or modification cost; 2. Installation of parking lots; 3. Draining installations; 4. Tournament related expenditures (those with experience know the high cost); and other miscellaneous capital cost. Since the budget has been properly categorized it is very competitive with courses comparable to it. Golf Course Superintendents will be the first to insist that comparing budgets is the greatest disservice anyone can do for their club. In the fiscal year 1983 less was spent on maintenance at the TPC than in '82. Weed projects that the '84 will be 20% less than the '83 budget. That's progress that can only be obtained by a top quality professional and Bobby Weed is meeting the criteria.

His radio communication system has provided him with an outstanding supervision program in addition to saving countless man-hours and dollars. Bobby Weed is very conscious about the key ingredient in any outstanding program — personnel. With good leadership and programs such as C.P.R. training for his employees, Weed is building a solid future for the TPC. With the use of such cost

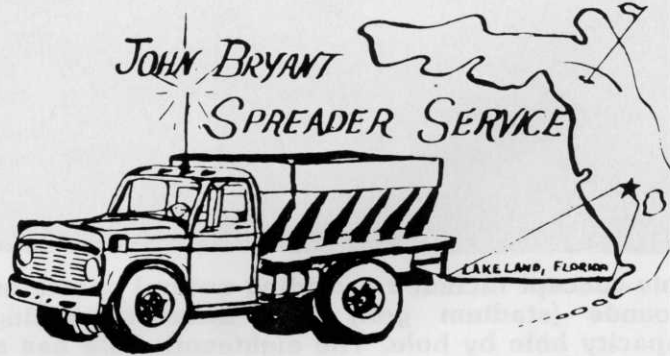


savers as steam cleaners, a Xerox copier (that greatly improves record keeping), a good mechanic and strong preventive maintenance program, he assures himself and the TPC of steady progress. In addition to the use of growth regulators to slow growth and reduce maintenance, he also mulches to further reduce costs and hand maintenance. His constant research and contact with universities and respected golf course superintendents across the country is a testament to his eagerness to improve himself and the TPC.

The Tournament Players Club will continue to change and improve. Only the universal test of time will determine its acceptability or possible greatness. If Bobby Weed has anything to do with it, the changes for positive results will be greatly increased. ■

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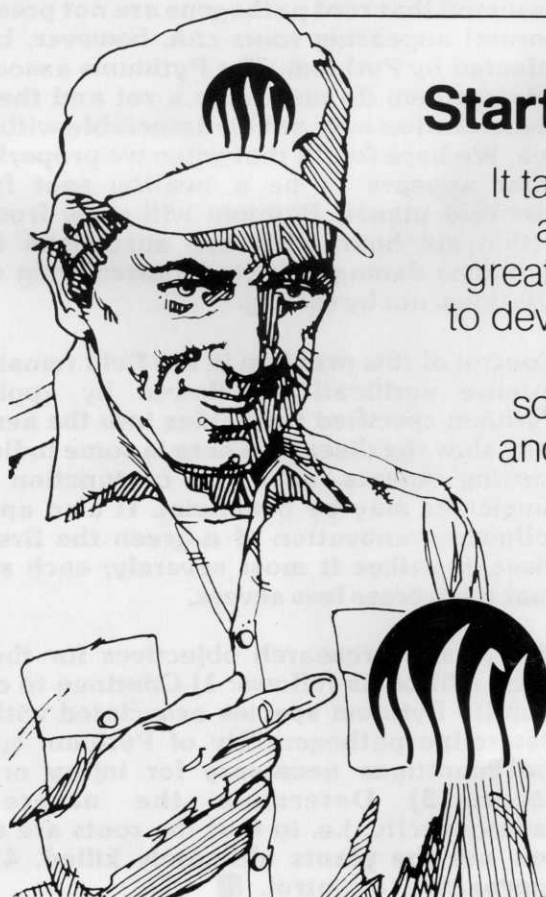
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Pythium and Sand Topdressing

By CLINTON F. HODGES
Department of Horticulture
Iowa State University
Ames, Iowa

(Increasing evidence for Pythium induced root dysfunction of creeping bentgrass grown in high sand content mixes.)

The presentation made by me at the 1981 M.G.C.S.A. annual conference implicated Pythium in a root dysfunction of creeping bentgrass grown on reconstructed high sand content greens. The disease in question killed grass very rapidly and in a manner typical of Pythium "Cottony Blight". Examination of diseased plants, however, failed to yield Pythium or any other pathogen from above-ground portions of the plant. Pythium was found throughout the root system of diseased plants. It is believed that when a green on an old golf course is renovated to sand, Pythium may infest the sand

from the collar and apron soil of the old green. The sand probably offers little microbiological competition for the Pythium and increased levels of irrigation and fertilization of sand greens may further promote the Pythium. There is also some evidence that more root mechanical damage may occur in sand than in soil; this could contribute to Pythium infection. This problem has not been observed in the roots of plants grown in traditional soil mixes.

To date, we have isolated four species of Pythium from the roots of creeping bentgrass associated with rapid death of infected plants. We are currently in the process of identifying the isolates to the species level and testing them for pathogenicity. It has been possible to infect roots in greenhouse studies and in some cases reduce the rate of growth of infected plants. Our present observations suggest that the Pythiums in question may infect the roots and co-exist with the plants with minimal damage under mild growing conditions. It may necessitate some form of environmental or cultural stress before death occurs. There are two outstanding problems for the superintendent relative to this disease. These are diagnosis and control. The rapid death of infected plants appears to be due to a foliar pathogen. However, examination of dying leaves usually fails to yield any pathogens and often times even saprophytic organisms are not present. When the root systems are examined they usually appear normal in size and color. Because of this it is assumed that root pathogens are not present. These normal appearing roots can, however, be severely infected by Pythium. The Pythiums associated with this problem do not cause a rot and the degree of discoloration may not be detectable with the naked eye. We have found that when we properly incubate what appears to be a healthy root from these diseased plants, Pythium will grow from the root within six hours. We are suspicious that these Pythiums damage plants by interfering with water relations, not by rotting.

Control of this problem in the field remains elusive. Intense aerification followed by application of Pythium specified fungicides into the aerifier holes may slow the disease. There is some indication that wetting agents used in conjunction with the fungicides may be beneficial. It also appears that following renovation of a green the first time the disease strikes it most severely; each subsequent year it becomes less severe.

Our primary research objectives for the next 2-3 years will be as follows: 1) Continue to collect and identify Pythium species associated with roots. 2) Determine pathogenicity of Pythium species and the conditions necessary for injury or death to occur. 3) Determine the nature of the pathogenicity; i.e. in that the roots are not rotted, how are the plants ultimately killed. 4) Examine approaches to control. ■



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FLORIDA LEADS NATION IN AMERICA'S 100 GREATEST COURSES

The November issue of Golf Digest listed their biannual rating of America's 100 Greatest Courses. Again our state posted the most courses listed in the elite group with eleven listed. They are as follows:

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North Palm Beach
Bill Whitaker, CGCS

THIRD TEN

Pine Tree Golf Club
Boynton Beach
Hal Hicks, Supt.

FOURTH TEN

Jupiter Hills Golf Club
Jupiter
Dick Herr, Supt.

Bay Hill Club

Orlando
Jim Ellison, Supt.

FIFTH TEN

Doral Golf Club (Blue)
Miami
Sam Kruger, Supt.

SECOND FIFTY

JDM Country Club (East)
Palm Beach Gardens
Carl McKinney, Supt.

Mayacoo Lakes Country Club
West Palm Beach
Mark Henderson, Supt.

Grenelefe Golf Club

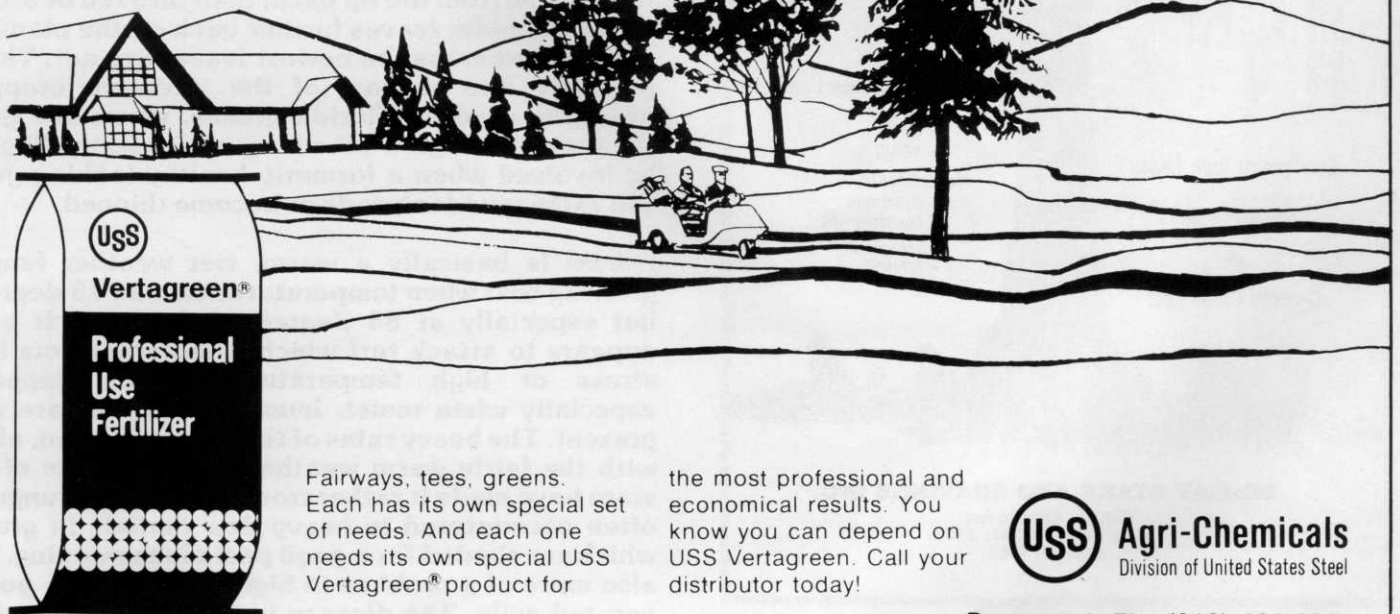
Haines City
Paul Hickman, CGSC

Innisbrook Country Club (Copperhead)
Tarpon Springs
Arlin Grant, CGSC

Sawgrass Golf Club
Ponte Vedra Beach
James Shine, Supt.

Tournament Players Club
Ponte Vedra Beach
Bobby Week, Supt.

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CURVULARIA IN FLORIDA GREENS

By LYNN GRIFFITH

Most golf course superintendents are familiar with basic turfgrass pathology and the common turf diseases, such as brown patch and dollar spot. One turf pathogen which is not well understood, but frequently encountered in Florida is the fungus *Curvularia*. The disease has been around for quite

some time, but has been popping up increasingly in turfgrass pathology diagnoses, especially during the exceptionally rainy weather of the past year. It is a common disorder, but unfamiliar to many superintendents.

The hosts of *Curvularia* include bermudagrass, annual and Kentucky bluegrass, creeping bentgrass, *Poa trivialis*, and fine-leaf fescue. The fungus also infects gladiolus and clover, but is primarily a turfgrass disease. There are four major species of *Curvularia* which infect turf. Unlike most turfgrass pathogens, it can be found on most any grass species, but it infects very few non turf crops.

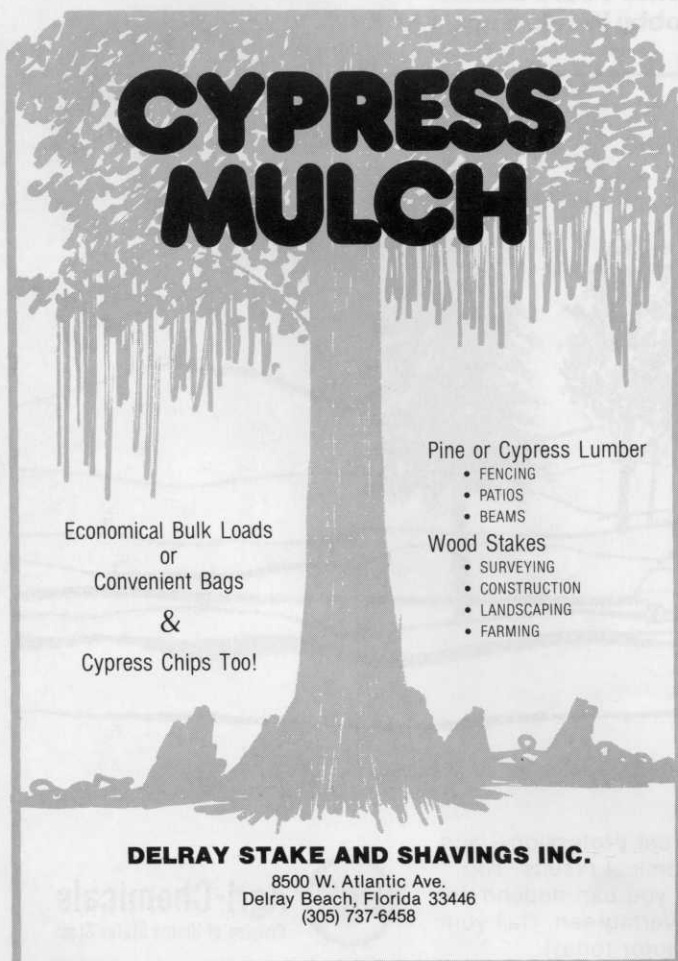
Curvularia is very similar in many ways to *Helminthosporium*. In fact, some pathologists refer to it as the *Helminthosporium-Curvularia* complex. Both fungi are pigmented, and the spores are quite similar, even to a trained pathologist's eye. The *Curvularia* spores are a bit stubbier, however, than those of *Helminthosporium*. The two fungi are sometimes found together in diseased turf.

There is some question as to whether *Curvularia* is a turf pathogen at all. It has been described a number of times as a "stress pathogen", meaning that it will cause disease after something else is already wrong with the turf. By this, I mean anything which may weaken the turf, such as nematodes, *Pythium* or *Rhizoctonia*, nutritional problems, poor soil aeration, excess moisture, or compaction. *Curvularia* may be found in almost any grass debris, even if the turf is healthy. The fungus is an excellent saprophyte, meaning it exists or persists in dead and dying tissue. The consensus of opinion seems to be that *Curvularia* will invade turf that is already weakened and become a secondary pathogen.

Curvularia is primarily a leaf and sheath rot in the bermudagrass greens in Florida. The grass blades turn yellow from the tip back, then turn tan or brown. Often the older leaves further back on the plant are affected, whereas the newest leaves are not. This is probably due to part of the intensive cropping practices used on Florida greens, where the grass temporarily outgrows the fungus. *Curvularia* will often be involved when a formerly healthy looking green will rather suddenly fade or become thinned.

Curvularia is basically a warm, wet weather fungus, growing best when temperatures exceed 75 degrees, but especially at 85 degrees and above. It often appears to attack turf which is suffering from heat stress or high temperature growth stoppage, especially when moist, humid conditions are also present. The heavy rains of the past year or so, along with the fairly warm weather in some parts of the state have made it rather troublesome. The fungus is often encountered in heavy dew periods in greens which are shaded for a good part of the morning. It is also more of a problem in highly compacted, poorly aerated soils. The disease is not nearly as bad on

(Continued on page 40)



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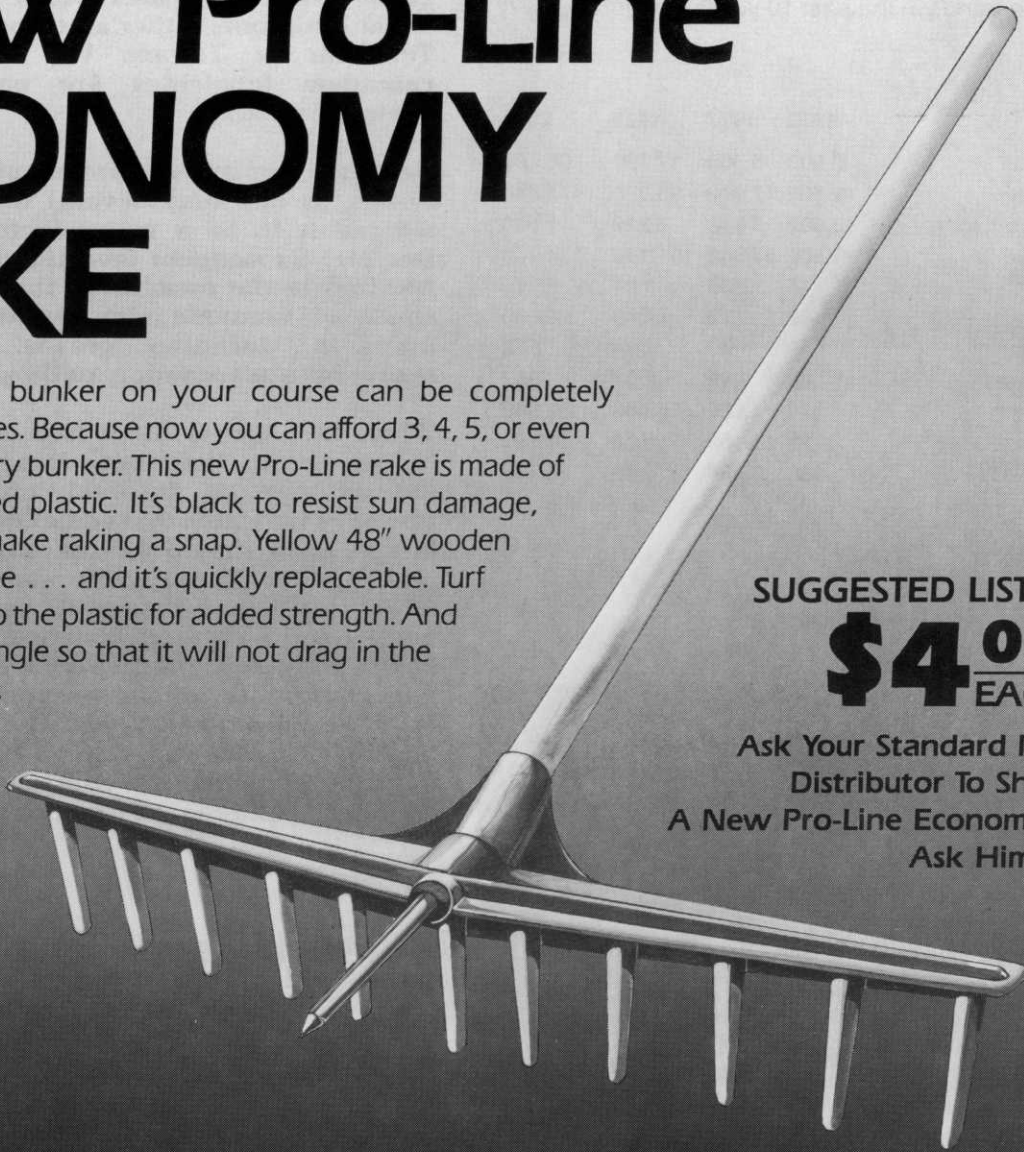
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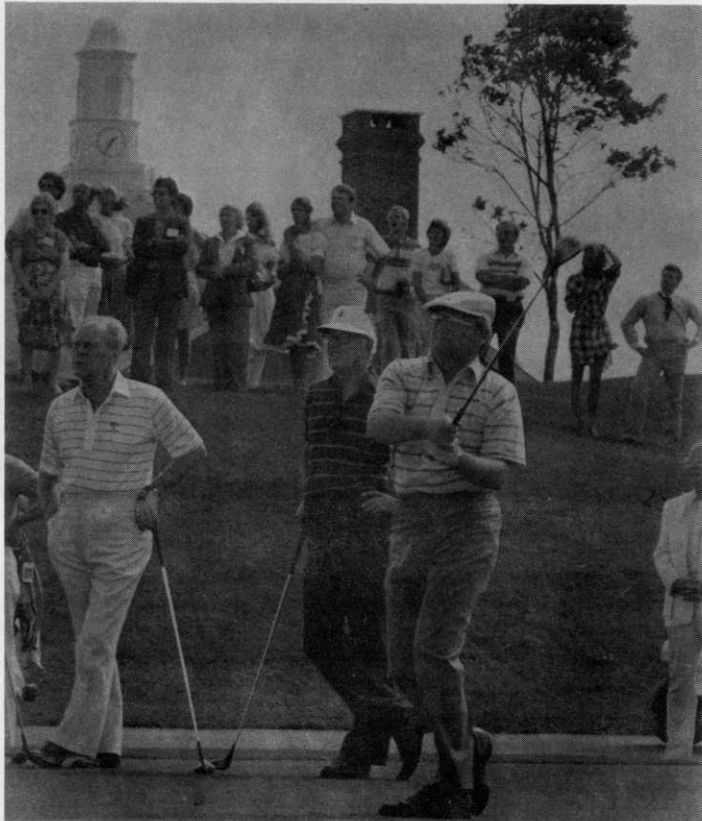
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WHAT A PRICE TO PAY!

We all know that the prices of various goods advance at different rates. Some will shoot ahead, while some will remain static. What would happen, though, if you took the price trend for the last five years and projected it to the next 10 years, or to the year 2001?

That is exactly what Manplan Consultants, a Chicago-based management consulting firm, has done in a recent study. Here are projected prices for various goods based on their price trends in the past 10 years (are you ready?)

	1973	1977	1987	2001
Low priced car	3,000	5,000	17,700	105,000
High priced car	6,500	12,000	55,320	471,240
Private college tuition	3,000	3,840	7,219	17,510
Average house	34,500	54,000	191,160	1,134,000
Bar of soap	.15	.35	3.01	61.12
Toothpaste	.39	.79	4.89	62.80
Rump roast (lb.)	1.49	1.49	1.64	1.89
Ground beef (lb.)	.89	1.19	2.57	7.54
Coffee (lb.)	.70	3.25	163.86	39,642
Jelly (small jar)	.25	.59	5.28	113.98
Sunday Newspaper	.30	.60	4.38	70.92



PGA Tour Commissioner, Dean Beman, driving from 1st tee.

(Continued from page 38)

fairways. It will persist for years in decaying turf debris, and if he's looking for it, a pathologist can find latent *Curvularia* in almost any turf sample.

Because *Curvularia* is so similar to *Helminthosporium*, those fungicides which control *Helminthosporium* will generally control *Curvularia*. The most effective compounds seems to be Daconil and the Mancozeb fungicides (Manzate 200, Dithane M-45, or Tersan LSR). Other fungicides which have been used include Actidione, either alone or in conjunction with Terraclor or Thiram. We don't feel that the cadimium fungicides are particularly effective against *Curvularia*.

Because *Curvularia* is so prevalent in stressed or dying tissue, at one time several turf pathologists considered it to be a major factor in Bermudagrass Decline. Subsequent investigations, however, have resulted in the conclusion that it is not a primary cause of Bermudagrass Decline. It is frequently found in "declining" greens, but probably as a saprophyte or secondary pathogen.

When *Curvularia* is diagnosed as a pathogen in a fading green, the superintendent must first ask himself what is the real, underlying cause. Its presence indicates that something else is wrong. The fungus itself should be treated, but for full, lasting recovery, the primary cultural disorder must also be addressed. Many times this year the weather has aggravated an already existing problem in the root zone. As a result, the lush, well-fed grass plant could not support its foliage properly, and *Curvularia* invaded the weakened tissue. Thus, in order to control this disease, the superintendent must combine the use of proper chemical controls with fundamentally good turf maintenance practices. ■

Wesco-Zaun/Toro Announce Michael Swanson Outstanding Salesperson Award

Wesco-Zaun, distributor of Toro products for the west coast of Florida, has announcez that Michael Swanson has been honored as the Southeastern Regional Master Salesman for Toro Commercial Turf Products. Swanson was presented a special blazer for most outstanding Toro turf products salesperson in the Southeastern United States at the annual Toro Distributor Convention on August 2 in Minneapolis, Minnesota, headquarters for Toro.

Swanson is currently the President of the Florida Turf Grass Association and represents Wesco-Zaun and Toro in cities, counties, municipalities and parks on the west coast of Florida. ■