

**Poa-Bent Fairways  
Extensively Damaged**

## Courses Become Disaster Areas As Pythium Strikes

By **JOE DOAN**

**N**orthern supts. who usually have to contend with some kind of a major mid-summer crisis year after year, were shaken as they hadn't been in at least a decade when a widespread outbreak of pythium and other diseases struck their courses in July and August. The plague extended from New England to the Midwest, with combination poa annua and bentgrass fairways suffering extensive damage along the entire belt. Greens also were hit, but to a considerably lesser degree than fairways.

Pythium, described as a water mold, caused so much havoc in the Chicago area that what amounted to an emergency meeting of supts., green chairmen, club officials and agronomists was called on Aug. 21 to discuss the crisis. It was expected that about 100 persons would put in an appearance at the La Salle Hotel in Chicago, site of the meeting, but more than 200 attended, indicating that few people connected with course maintenance were taking the situation lightly. Among those at the meeting were delegates from Wisconsin and Indiana. The Chicago District GA organized the meeting.

### **Fairways Hard Hit**

Numerous supts. reported that from two or three to a half-dozen of their poa-bent fairways went out on them, and several

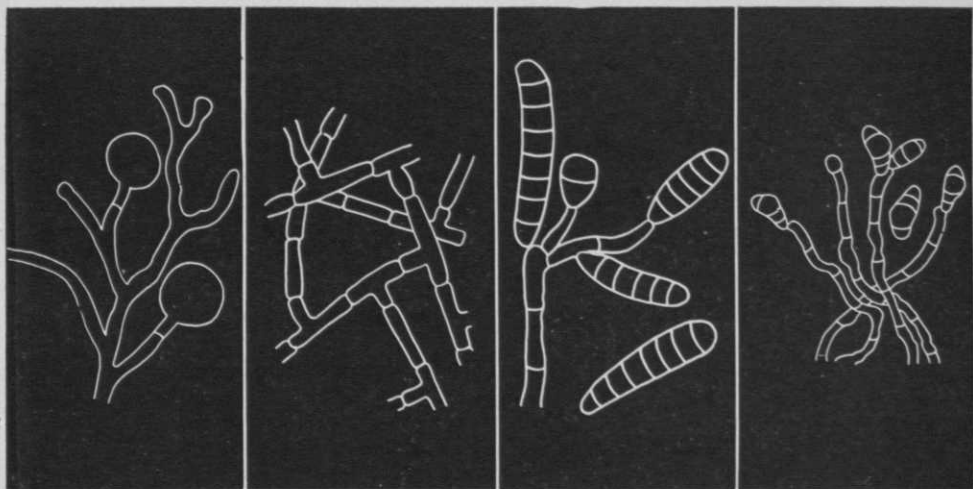
turfmen in the Chicago area estimated that 75 per cent of the combination fairways were damaged to some extent by the pythium blight. The disease has little actual effect on bentgrass. But once started, it makes widespread inroads into poa annua, which enters a semi-dormant stage in July and August and is particularly susceptible to disease and wilt. Pythium is recognized by a graying-white fringe that surrounds patches of dead grass. It may collect in small clusters or spread out over relatively large areas.

### **Holmes Assembles Experts**

A panel of experts assembled by James G. Holmes, Midwest agronomist for the USGA green section, that included Drs. Jack Butler and Mike Britten, University of Illinois plant pathologists, Dr. William H. Daniel, Purdue University agronomist, Warren Bidwell, Olympia Fields CC supt., and Roy Nelson, Ravisloe CC supt., agreed quite definitely on these points:

- Pythium is always waiting to be summoned during hot weather. If high temperatures and high humidity prevail for three or four straight days at any time from late June through the remainder of the summer, pythium is going to build up.

- Courses that are poorly drained, overwatered or hard hit by rain provide the healthiest kind of incubating "soup" for pythium. It becomes even healthier if high



Here is how the enemy looks under a microscope. At left, is pythium, which caused Northern supts. many headaches during the summer. Brownpatch, helminthosporium and curvularia also were included among the diseases that caused much turf loss during July and August.

humidity (consistently above 70 per cent) is prevalent.

- A reasonably priced, effective fungicide that will inhibit the spread of pythium hasn't yet been formulated. Roy Nelson pointed out that a manganese-zinc mixture possibly is the most effective fungicide that can be used in controlling pythium, but it is doubtful if any clubs could afford to apply it on a regularly scheduled basis. Mike Britten conceded that perhaps enough attention hasn't been given to developing a pythium fungicide because there hasn't been a pressing need for it in recent years. In 1955, courses were just as hard hit by the disease as in 1964, but thereafter pythium didn't cause any distress to speak of. So, everybody forgot about it until this year.

#### Friend or Foe?

- The inevitable question, "Is poa a friend or foe?" was widely discussed, not only by the panel but the audience. Warren Bidwell said that he hopes to see the day when he can have 100 per cent bent fairways, but he was reminded by several persons that it may be impossible to ever completely kill off poa. Nelson, on the other hand, advocates making a partial transition by replacing divots with bent seed and by roughing up the fairways to work more bent in. Eventually he'd have nearly as much bent as poa annua.

As usually is the case when bluegrass vs. poa for fairways is discussed, most supts. insisted that there are just too many golfers around who would rather fight than switch to playing off bluegrass. Jim Holmes contended, however, that bluegrass can be maintained at a one-inch cut and thus gives practically as good lies as the poa-bent mixture. What is needed, he added, is a campaign to convince golfers that a changeover to bluegrass can be made without causing any deterioration to speak of in playing conditions.

#### No Solutions Offered

Probably no concrete solutions to the pythium dilemma resulted from the Chicago meeting. The probable cause of the disease was pinpointed, but little can be done to eradicate it unless golf and country clubs are willing to spend a great deal of money on a fungicide program that will knock it out when it threatens.

Some persons at the meeting hopefully said that a severe pythium invasion may be a nine-year phenomena and it will be 1973 before supts. are harassed by it again. But they were reminded that the high temperature and humidity conditions that prevailed in July and early August can keep on recurring year after year and what they hope is no more than a nine-year blight may become an annual plague.

(Continued on page 84)

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Doug Sanders is briefed on emergency ejection seat trainer at Webb AFB, where he recently played an exhibition. Col. A. F. Taute, wing commander (second from left), and T/Sgt. Bobby D. Eiland (l) supervised instruction of the well known touring pro.

## Pythium Hits Fairways

(Continued from page 29)

Those who advocate continuing to go along with poa said that some kind of a concerted effort should be made to make it a better grass. They contended that it holds up exceptionally well in the spring and fall and covers up a multitude of sins of mismanagement. Jack Butler said that poa could be considerably strengthened if a proper breeding and selection program were undertaken.

### No Easier to Maintain

Several persons attending the meeting declared that bluegrass fairways are playable seven months out of seven as compared to five out of seven for poa annua and thus are preferable. But it was brought out that bluegrass isn't any easier to maintain than poa annua and bent since it requires more watering and fertilization than these strains, is readily subject to drought and has to be carefully protected against disease, notably leafspot, and competition from poa annua.

Here are other reports on the summer turf situation at Northern clubs:

New England — Helminthosporium, curvularia, fusarium and wet wilt, along with pythium, caused rather extensive damage in July throughout New England, according to Phil Cassidy, supt. of Weston GC, Needham, Mass. Most clubs had used a preventive spray program, with



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## PGA Moves Annual Meeting to Las Vegas

The nine-day annual meeting of the PGA will be held Dec. 3-11 in the Hotel Sahara in Las Vegas. All preliminary committee meetings, teaching and education programs, formal sessions and dinners will be held at the same site.

This is the third time in eight years that the PGA has scheduled its annual conference in the West. It was held in Long Beach in 1957 and in Scottsdale, Ariz. in 1960.

General chairman of the 48th meeting will be Henry C. Poe, Reading, Pa., who has served in a similar capacity for the last three years. The teaching and education programs will be conducted on Dec. 8 and formal business sessions will start on the following day. The president's dinner, at which Warren Cantrell will be host, also is scheduled for the 8th.

Bobby Nichols, winner of the PGA Championship, the pro-of-the-year, player-of-the-year and those elected to the Hall of Fame, will be saluted at the president's dinner.

PMA and iron the most commonly used spray materials. Undoubtedly, this saved some turf. New England supts. are divided as to whether to get rid of poa or continue to go along with it. Many of them feel that management practices are in for radical and expensive changes if golfers persist in insisting on turf that has to be in perfect playing condition throughout the golf season.

Alex Radko, who covers the beat between Virginia and Maine for the USGA green section, says that for the most part disease was not too much of a problem at East coast clubs but most of them suffered quite severely from wilt. May and June were unusually dry and at many courses the fairway sprinklers seemed to be running all day. Following light to medium rains in early July, greens became fluffy and wilt and some injury due to scalping were noted. All in all, Radko feels that the coastal clubs came through the summer better in 1964 than they had in previous years.

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**New York** — Turf was in a lush and tender stage in early July, following a period of heavy rains and cool weather. Shortly thereafter, extreme hot weather caused much damage to poa annua which was beset by brownpatch and dollarspot. Even the normally cool Catskills area was affected. Bill Smart, supt. at the Powellton Club in Newburgh, reports that 4- and 3-inch rains occurred frequently during the wet weather spell and greens and courses that aren't well drained suffered because of them. A second disease wave set in in August due to humid weather, but turf had recovered enough to withstand it. Heavy fungicide treatments also helped to restrict the damage when disease made its second onslaught.

**Ohio** — E. J. Sylvester, supt. at the Piqua CC, says that July was a particularly trying month. Several courses lost greens, and fairways generally were reported to be in poor condition, particularly in the Miami Valley area. Pythium and other diseases were rampant during the period of high heat and humidity. Sylvester, personally, was quite successful in combatting the diseases with PMA and a thiram-semesan combination of five ounces per 1,000 square feet. The latter seemed to stem the pythium organism. A few days after the treatments were completed, Sylvester applied light topdressing and the pythium disappeared.

**Michigan** — Many courses were hit hard during the last week of July and in early August. Some supts. thought the already poor conditions were aggravated because heavy play kept them from watering adequately. With the Carling Open coming up, Howard Jones of Oakland Hills was permitted to water over the weekends and his course came through in fine shape. Bluegrass fairways held up well, but those with poa annua and bent were severely damaged. In a few cases, greens were lost. One course lost three recently rebuilt greens, but the loss was charged to poor sod. In a letter to his members, Andy Bertoni of Meadowbrook CC, Northville, detailed ten reasons why turf at this club quickly fails or suffers when it is attacked by disease. Poor underlying soil, compaction and similar factors prevent turf from becoming deep rooted,





Dave Hartmann, a 14-year old who has overcome a severe handicap in learning to play golf, gets instruction on the grip from Marge Gambo, professional at Da-De-Co GC in Ottawa, Ill. Dave is paralyzed from the waist down. He started playing golf this summer, drives the ball about 100 yards and shoots in the 70s for nine holes. He has learned to putt without the aid of crutches and to walk from the apron to the hole without aid. The youngster was crippled by polio at the age of one and never walked until he took up golf.

Bertoni pointed out, and when disease strikes the turf isn't hardy enough to fight it off. The Northville supt. added that where bent has taken over, fairways held up well, but the bent propagation program won't be completed for several years yet.

Wisconsin — Scald, pythium, brown-patch, helminthosporium, algae, compaction — everything in the book — conspired to wrought havoc on Southeastern Wisconsin courses in late July, says Charles Shiley, supt. at North Hills in Milwaukee. At the same time, Central and Northern Wisconsin courses were reported to be in excellent condition. An excess of rain in April gave poa annua a good start, but it was retarded by drought conditions in May and June. Then, on July 17-18, the Milwaukee area was hit by more than seven inches of rain and the trouble began. High temperatures and high humidity followed and fungus took over. All the reliable fungicides were used, mowers were set higher but recovery was slow

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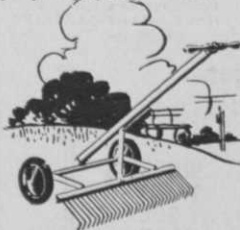
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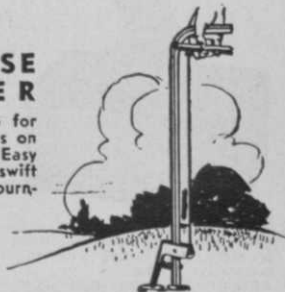
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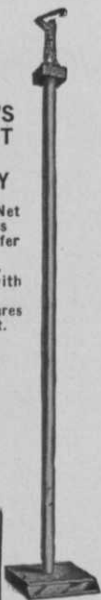
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because such severe damage had been done. It wasn't until mid-August, when cool weather came, that the Milwaukee area courses started to snap back.

**Missouri** — Ralph Guyer, supt. at Glen Echo in St. Louis was somewhat surprised that Missouri courses didn't suffer more than they did. Heat was much in evidence, as it always is in this part of the country, but the humidity readings possibly were below normal. The state had little rain during the summer and the average wind speeds were higher than usual. Missouri courses had to contend with the usual amount of wilt but little pythium was reported. One thing that helped Missouri supts., according to Guyer, was that turf supply and chemical salesmen set up a very good communication system, telling turfmen what was going on at other courses and what was being done to cope with any trouble that was encountered.

**Minnesota** — John L. Kolb, supt. of the Minikahda Club in Minneapolis, reports that the state had one of the hottest summers on record but very little, if any, turf was lost to disease. Hot, dry air overlaid Minnesota most of July, but between the 17th and 21st the humidity shot up somewhat and from .3 to an inch of rain fell. Some pythium was detected in overwatered fairway areas but it disappeared when dry weather returned. Minnesota has a large rainfall deficit for the year and the only clubs that have suffered turf losses are those without fairway irrigation systems. But the losses haven't been very extensive.