



PYTHIUM PACKS A PUNCH

By Dr. Gayle L. Worf

I'm writing this article on the first really cool day we've had in the month of July. Yesterday I heard the weatherman describe in some detail how the patterns had shifted to give us "St. Louis weather" this year. Few of us would disagree! It's no surprise that we are experiencing unusual outbreaks of Pythium on turf this year. Here are a few observations on the subject.

1. Outbreaks have occurred on many golf courses that have never known of it before. I recall riding on a Cushman with a superintendent one hot sultry morning last week, talking about his treatments and precautions. "I've treated my greens and tees with Subdue—it's just a precaution, because I've never seen a case of Pythium here in 20 years". You've probably guessed the next part of the story—before our ride was over, we had encountered several very active new pockets of Pythium getting started in his fairway. And before the next hour was over, the fairways were on their way to a treatment, this time with more urgency!

We've confirmed samples from as far north as Wausau. Probably no part of the state is immune from Pythium possibilities this year.

2. In spite of greater threat, relatively less damage has been reported this year than in our last serious "Pythium

year", which was in 1983. That year several courses suffered serious and lasting damage to greens, tees and fairways. Two reasons probably account for the difference: (1) superintendents are very alert to the threat, and have taken necessary precautions; (2) the new, longer lasting fungicides—Aliette, Banol and Metalaxyl (Subdue and other formulations)—are performing very well! We've not encountered a bona fide report of failure yet with these compounds. Two suspected situations where resistance was thought to have been encountered turned out to be something else. So that is very good news for Wisconsin golfers, probably one that most don't know anything about. But we need to be alert to such possibilities. I'd appreciate knowing of any situations where "resistance" problems are encountered, either with Pythium or other diseases.

There are other products that are still worthwhile to remember—chloroneb, ethazol and mancozeb. Resistance isn't as likely to occur with these, but of course they don't last for more than two or three days without another application. In most years, I suspect these are as useful to us as the first group, because we don't have such sustained periods of Pythium weather. But not this year!

3. Several have asked whether the

systemics are as effective as the "contacts" for stopping an active infection. While we've tried for several years to examine this question, we still don't have personal experience with it on Pythium. But I would expect them to work equally well. Most systemics also have very good "contact activity" and, contrary to some thinking, they don't have to get into the plant in order to do their job.

4. Symptoms caused by Pythium can be somewhat variable. Often called "cottony blight", the disease nevertheless often strikes without any evidence of a cobwebbing surface growth, or "shaking its rattle", like a rattlesnake. And though it's much more likely to occur in lower areas and taller turf first, it doesn't always "run", or trail along mower wheels or drainage channels. It can even mimic "patch diseases" on occasion, causing distinct rings or circles of dead turf, with the center more or less unaffected. The most dependable early symptoms I've seen include (1) sudden and severe attack on the foliage; (2) roots relatively unaffected, at least early in the attack; (3) affected tissue is water-soaked and dark and leaves tend to mat or stick when rubbed together. These symptoms could fit for Rhizoctonia brown patch, too, and on two occasions this year we've confirmed both diseases present and active at the same time. But usually brown patch is less damaging to all of the turf in the attacking area, that is, it tends to run under the more upright blades of grass, and becomes more damaging as it grows outward.

From what I've seen on some television turf this summer, other areas have not fared as well, or managed as properly, as Wisconsin courses in 1987. Let's keep it that way!

Gelhar Sand

Serving Golf Courses Since 1919

Silica Sand-Washed, Screened and Blended to U.S.G.A. specifications.

Top dressing and Bunker Sand.

Chemical analysis of Washed Silica

Silica	99.941%
Iron Oxide	.018%
Aluminum Oxide	.012%
Calcium	.004%
Magnesium	.003%
Sodium	.001%
Potassium	.001%
Titanium	.001%

Silica Sand Top Dressing Screen Analysis

Mesh	% Retained
30	2.0
40	11.0
50	25.0
70	51.8
100	10.0
140	.2



P. O. Box 78 • Larsen, WI 54947

414-667-4792

LAKE SHORE SAND TDS 2150 TOP-DRESSING SAND

- CREATES A TRUER PUTTING SURFACE
- IMPROVES WATER INFILTRATION RATE
- HELPS CONTROL WEEDS—INCLUDING POA ANNUA
- MATCHES USGA SPECIFICATIONS

— TYPICAL DISTRIBUTION —

MESH	MM	% RETAINED
30	0.60	0.2
35	0.50	0.8
40	0.42	3.4
50	0.30	28.0
60	0.25	25.9
70	0.21	23.5
100	0.15	18.0
140	0.10	0.2

JORDAN R. SENSIBAR — AREA REPRESENTATIVE —
(414) 271-0625

515 West Canal Street • Milwaukee, WI 53202
(take the 6th Street viaduct)