

Pythium Diseases of Turf

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ing. What is important is that both the weather conditions and the nutrition of the turf are conducive for Pythium blight to develop. If "disease conditions" exist long enough to allow the fungus time to attack, you see disease symptoms; and if you can find significant evidence that a Pythium is colonizing turf plants sampled from the affected turf, then you have diagnosed Pythium blight. The conditions for Pythium blight of the foliage are generally: 1) wet/humid weather, 2) daytime air temperatures above 85°F and night temperatures above 80°F, and 3) turf that is rich in sugars (lush green). Conditions for root rotting Pythium diseases are: 1) wet soil, 2) nutrient rich plants, and 3) soil temperatures of 45°-60°F or 80°-90°F. Unfortunately, once a Pythium blight starts

to develop, it can destroy turf rapidly. It is better to plan ahead by using information that can help you predict potential *Pythium* blight development.

How can Pythium blights and Pythium root rots be predicted?

Pythium Blights: Weather conditions are the most important criteria for predicting warm temperature foliar blights (see above). These conditions need to exist for several days. On each golf course, there usually are several areas that will develop *Pythium* blight before others. I call these "hot spots." If you can identify these, you will know where to look for early signs that Pythium blight is developing. Observing your "hot spots" and knowing when disease-conducive weather conditions exist should allow you enough time to apply Pythium fungicides.

For golf turfs, it is often necessary to integrate a fungicide plan into your disease management program. To upgrade your Pythium management program, consider using a weather monitoring system that interprets both the present and near past weather conditions and estimates the potential for Pythium blight (Envirocaster is one such system). Remember, having the correct weather conditions does not mean you will always get Pythium blight. Another tool to use is a Pythium detection kit. This type of kit detects the presence of Pythium and attempts to quantify it. However, caution should be taken when using these kits because the presence of Pythium in turf tissue alone is not enough to predict that a blight will develop.

Pythium Root and Crown Rots: These diseases are much (continued on page 24)

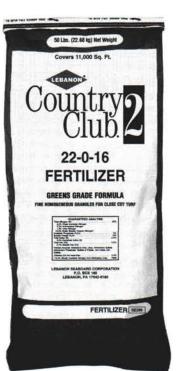
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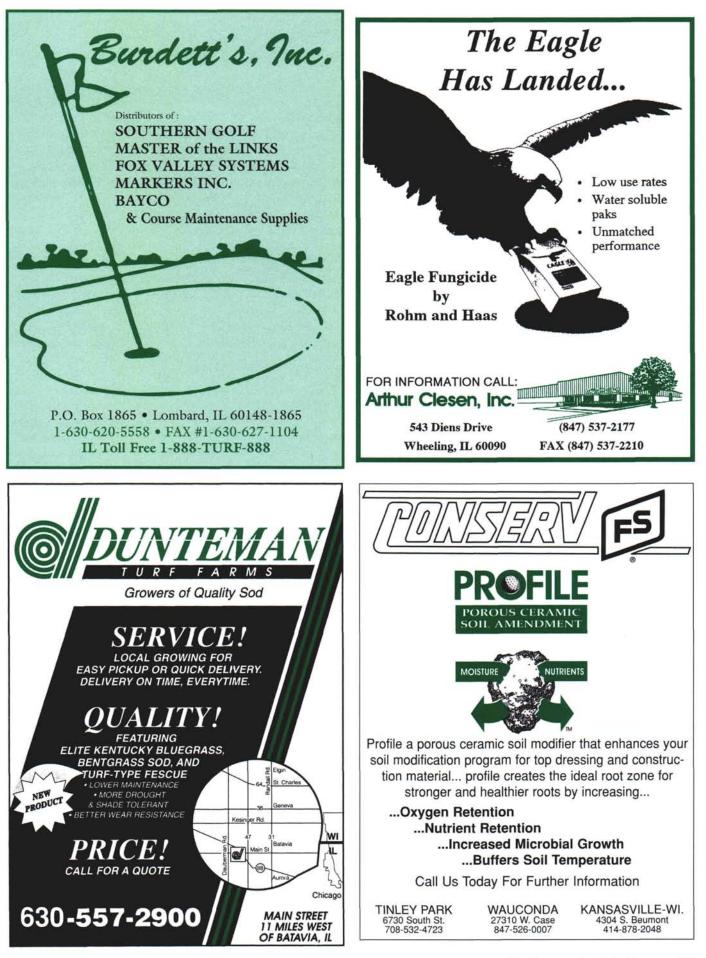
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Pythium Diseases of Turf

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more difficult to predict, but they also develop a bit slower than foliar blights. Recent research reported by Professor E. Nelson from Cornell University indicates that several species of Pythium can cause these rots, and the rots are most severe at temperatures of 45°-60°F or 80°-95°F. Essential for the development of Pythium root and crown rot is having a very wet turf. Again, these diseases will develop in the same general areas of turf, and you can identify "hot spots" that can be monitored. There are no predictive models that will evaluate soil conditions and predict the potential for root rot.

What is the best approach for controlling *Pythium* blights?

Each golf course could require a slightly different approach to managing *Pythium* blights, but there are some good directives that, in general, should keep these diseases from getting out of control.

1. Reduce the length of time your turf stays wet! There are two approaches here: a) create conditions that allow the foliage of your turf to dry rapidly (for example, insure good air circulation), and b) maintain water infiltration and soil drainage (core aerification and subsurface drainage will get this done).

2. Maintain a balanced level of fertility! Do not overapply fertilizer. If your thatch layer is increasing or if your nitrogen is higher than 6%, you are overgrowing your turf, and it will be more susceptible to *Pythium* disease.

3. Do not stress your turf! Drought, heat, wear and soil compaction are a few of the many stresses that can predispose your turf to increased severity and incidence of *Pythium* blight; and they will slow down the rate at which your turf can recover from this disease.

4. Reduce the pH of your turf, especially in the thatch and crown area! Maintaining turf at a pH of 6 or lower will have a positive effect on *Pythium* blight development. Turf pH values above 8 will be more conducive to the *Pythium* blight fungi.

5. Add organic material to your turf as top dressing! This is not a proven method to specifically control *Pythium* fungi, but adding organic matter will improve thatch degradation and adds microbes to your turf that could compete with the *Pythium* fungi.

6. Use fungicides to stop or slow the rate of disease (continued on page 32)



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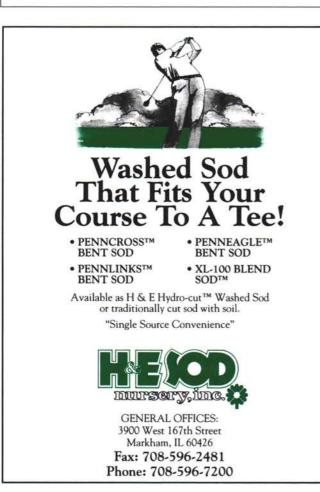
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Membership Has Its Price!

Tod Hopphan Eaglebrook C.C.

pince spring has come and gone, I wanted to write down a few inspiring words to pass on to my friends and associates. As you have probably noticed over the years, my articles have had a certain environmental twist to them. I am a strong supporter of the Audubon Cooperative Sanctuary Program and what it has to offer to the golf course maintenance industry. With increased awareness of environmental issues, governmental regulations and under-the-microscope interrogation by outside groups, we need to be more organized than ever. We need to work together as a group-strength in numbers. If we take on the individualistic idea that we can do it ourselves, then we as individuals will surely fail.

What am I getting at? Well, it is simple. Together we stand; divided we fall. It may sound corny, but I think it fits in this situation. Over the years, I have gained many friends in this industry. I have never been turned down in the time of need with a

Larry Chirico -N- Rolling Green C.C.

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Larry broke into the business working on the grounds crew for Wayne Otto at Ozaukee Country Club outside of Milwaukee, Wisconsin. After three years at Ozaukee, Larry moved over to Milwaukee Country Club, where he started his association with Danny. In 1989, Larry joined Dan when he moved to Medinah. In 1990, graduated from the Larry University of Massachusetts Winter Program. When Brian

question or in search of an answer. Being associated with the MAGCS, I have gained so much more than I would have alone. The educational program has taught me much over the years, but I have gained even more by just talking with fellow superintendents at meetings and on the links. If it has been about the latest trend, newest product, a better way of getting the job done or just to have a shoulder to cry on, it has helped.

For a group to not only survive but to thrive needs commitment from its members. All we have gained so far would not be possible if others hadn't given of their time. As I have learned recently, membership has its price. It is not enough to just say we are members of a group. We have to do more to make the commitment real. To do things halfway is a waste of time. Do it right, or don't do it at all.

With the increased pressure from our employers, members /customers, neighbors and foes, we need our friends more than ever. As a group, be it GCSAA, MAGCS, Audubon Cooperative Sanctuary Program, we need to make a collective commitment. Most of us are members of the first two, but there are many of us who have not made the commitment to the Audubon Program. Just by enrolling in the program and letting them know what you have to offer is worth so much. Not everyone has to become certified or to go through the whole process. Pace yourself. I know that some courses have more to offer than others. However, if we put our collective effort forward and at least become a member/supporter, we can grow as an association even further. Hopefully as our association with other groups strengthens, the pressures put upon us will lessen. That remains to be seen, but a putting-ourheads-in-the-sand mentality will not get us anywhere.

Search in your heart, and go with what you feel is right. Once you have figured your direction, make the commitment. Not only just say you are a member, but make a difference. Everyone will benefit, and we will all have something to be very proud of. You will be glad you did it!

Bossert moved to Bryn Mawr, Larry became the superintendent on Course 3, where he stayed until moving to Rolling Green.

Last winter, Larry represented the Midwest at the John Deere Tournament in Newport Beach, California. He played with his general manager, golf professional and club president. Larry's team did not fare very well, but he says it gave him the opportunity to strengthen his relationship with the other key members of the Rolling Green management team. Larry and his wife Nancy reside in Roselle, and they are the proud parents of a 3-yearold son Kyle. On June 2 if Larry looks a little tired, it is probably because of the baby that the Chiricos are expecting the third week of May. Congratulations ahead of time, Larry, and don't forget the cigars.



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On Course June 1997

NEW HOLLAND



An Unexpected Gift

(continued from page 20)

Unfortunately for us, the nearest supplier of Lexan that we knew of was in St. Louis, a fiveworking-day delivery away. Once the product arrived from St. Louis, it went up relatively easy with drywall screws and rubber washers. As soon as the Lexan was in place, two heaters were donated to us by the cement contractor and installed at either end of the greenhouse. Lights and additional outlets were installed, and the gas line was extended into the building. Later we found out that both heaters were in need of extensive repair and were subsequently removed and replaced. On November 27, the day before Thanksgiving, with almost the entire greenhouse finished, heated and irrigated, the staff that I had remaining sat down to a potluck pre-Thanksgiving dinner in our enclosed greenhouse.

Ron Himes, an assistant superintendent, was given the responsibility of operating the greenhouse once the outer construction had been completed. Many of his ideas were used in the placing of benches, irrigation system installation, ventilation, work area, etc. However, he did solicit advice from the greenhouse staff at the Park District's Sinnissippi greenhouse. They were invaluable with their help and suggestions. We owe them a great deal of thanks. A large portion of our bench space was donated by the Sinnissippi greenhouse. They were in the process of a major overhaul to their facility and were downsizing their available bench space, so we were happy to take it off their hands. Around 75 percent of our bench space came from them; the other 25 percent was constructed out of 1.5 inch conduit and treated lumber.

Another issue that took a considerable amount of discussion

was that of irrigation. We were unsure as to how we were going to adequately water all of these flats without taking a full day to do it. The answer was some relatively low-pressure irrigation sprinklers mounted on 1-inch PVC pipe and placed overhead for a quick drenching affect early in the morning. In addition, 1-inch PVC pipe was installed underneath two benches, and five spigots were strategically placed so we could access water quickly but, more importantly, not have a great deal of hose lying on the floor. We plan on using the overhead irrigation early in the morning to allow the leaves to fully dry prior to the midday sun, then touch up dry areas as needed with the hose taking extra precautions to keep the leaves relatively dry.

We are excited about the possibilities and opportunities this will bring to our facility and the Rockford Park District. The purpose, as stated in our initial planning meetings, is that this facility will be able to provide flowers for all of the park district's five golf courses, its Sportscore Complex and Magic Waters Theme Park. I am confident that we will realize a 50 percent reduction in our annual flower budget throughout the park district in this first year.

Our 22- by 44-foot greenhouse is now a reality! We have some palm trees from Magic Waters overwintering here, with some geraniums that have come back to life at their base, providing leaf cuttings for eventual plants to be used on the golf course. Our canna lilies are now potted and beginning to grow here, rather than at the Sinnissippi greenhouse where they are running out of space. Yes, we have already planted some tomato seeds, and the plants are around 12 inches tall. In mid-March, our shipment of annuals arrived, and the real test began. We have eagerly anticipated this challenge and hope to expand our scope of opportunities in the near future.

Any advice that anyone with a greenhouse could give us would be greatly appreciated. If you should be traveling in the Rockford area, I invite you to stop in and tour the facility. We would be more than happy to show you around. It has been a worthwhile investment, and I am grateful to be a part of it.







DATES TO REMEMBER

June 2 — MAGCS monthly meeting at Rolling Green C.C.
June 23-29 — 1997 U.S. Senior Open at Olympia Fields C.C.
July 7 — MAGCS monthly meeting at Orchard Valley G.C.
August 4 — John Deere Team Championship at LaGrange C.C.
August 14 — MAGCS monthly meeting at Bartlett Hills G.C.
August 24 — MAGCS family outing and Kane County Cougars baseball.
September 29 — ITF Northern Golf Day at Glen View Club and Evanston G.C.

It is a shame that *On Course* needs such a long lead time to put it into the mail to the members. Here I am reporting on the CDGA Green Seminar that took place on April 10, and you are reading about it in June. With the original "Bull Sheet," you would have been reading about it in May:

Randy Kane and his committee for this seminar did an outstanding job of putting together some interesting speakers.

Frank Hannigan, ABC Sports golf commentator, talked about Augusta National from the beginning of the tournament to the present. It was very entertaining listening to all of the whims and extravagances of what goes on to make it a premier event on the golf tour.



Frank Hannigan— "Whatever I lack in knowledge, I can make up in opinions."



Chris Pekarek and Tim Kelly of the Village Links of Glen Ellyn gave us an insight into what it took to win all of their various environmental awards. A tremendous amount of work and effort was put forth to do so. What a wonderful program and asset for the Village of Glen Ellyn.

Wayne Timberman of Softspikes gave an excellent history of plastic cleats from their early creation in Colorado to the present. Mr. Timberman said that Arnold Palmer tried his cleats in 1994 at a golf outing and slipped. Palmer immediately sent back to the clubhouse for his regular shoes with metal spikes. His comment at the time was, "Hell will freeze over before I will use this product." Two years later "Hell froze over," for he is now wearing them.

NECROLOGY

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It is with a deep sense of loss that we announce the death of Ruth W. Burdett, mother of Jim Burdett, on April 13, 1997. She was born on October 10, 1907.

Ruth and husband Paul B. Burdett started a distributorship in 1941 selling supplies to golf course superintendents. They worked from their home in Lombard. There were many times that Ruth would get a phone call for supplies and with Paul already out delivering, would load her car and make the delivery herself.

She was integrally active in starting the GCSAA's women's program (now the spouse program) with Mrs. Ray (Jo) Gerber and others. Ruth also was active as president of The Chicago Women's Club as well as the Lombard Women's Club.

Assistant superintendent needed. Call Chuck Anfield at Steeple Chase G.C., 847-949-1419.

Congratulations to Bob Maibusch and Craig Joscelyn for becoming recertified recently. Recertification must take place every five years.

Wanted: Standard club washers and Allis Chalmers golf cart, any condition. Call Verlyn Strellner, 847-835-7030.

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