

THE WILKINSON-KANE REPORT: WHAT'S ROTTING GREATER CHICAGO!

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You will recall that last summer the first "Wilkinson-Kane Report, What's Rotting the Turf?" appeared in the July issue (vol. 50, no. 2) of *On Course*. Since that issue, a survey was distributed to golf course superintendents in the greater Chicago area and members of the Midwest Association of Golf Course Superintendents. With the help of Editor Fred Opperman, Randy and I have compiled some useful information on what diseases you deal with and how much money you are spending to control them. This report will describe these data and also project how Randy and I expect to make this information work for you!

HOW MANY OF THE 300 SUPERINTENDENTS WHO RECEIVED THE SURVEY RESPONDED?

Eighty-seven superintendents returned the survey card that was attached to a summer issue of *On Course*. That is roughly 30 percent. I am not sure why this is so low. Superintendents are busy people. The other explanation is that only 30 percent of the superintendents have problems with diseases, while the other 70 percent do not. We do not believe this explanation for a second. We know that every superintendent in Illinois uses fungicides to control turfgrass diseases. We hope that those reading this article will

understand why responding to a survey is important!

ARE ALL SUPERINTENDENTS LIKELY TO DEAL WITH THE MAJOR DISEASES THAT DEVELOP IN ILLINOIS?

The answer is yes! If you look at Figure 1, it indicates that about 75 of the respondents said that they face summer patch, dollar spot, snow mold, brown patch, Pythium blight, leaf blight, and rust. In addition, there were 39 superintendents that said they faced additional diseases as well. These data are important for the following reasons:

1. They tell us that superintendents should be scouting for all of these diseases during a given year.

2. They also support the idea that the climate of Illinois and the many micro-climates found on a single golf course support a wide range of diseases.

3. They indicate that it is important for superintendents to know how to predict, recognize and manage all of these diseases.

WHICH WERE THE MOST IMPORTANT DISEASES, AS RANKED BY THE SUPERINTENDENTS?

Looking at Figure 2, the most serious disease that superintendents face is dollar spot, the second is Pythium blight, and summer patch and brown patch are tied for third. Another interesting point is that no superinten-

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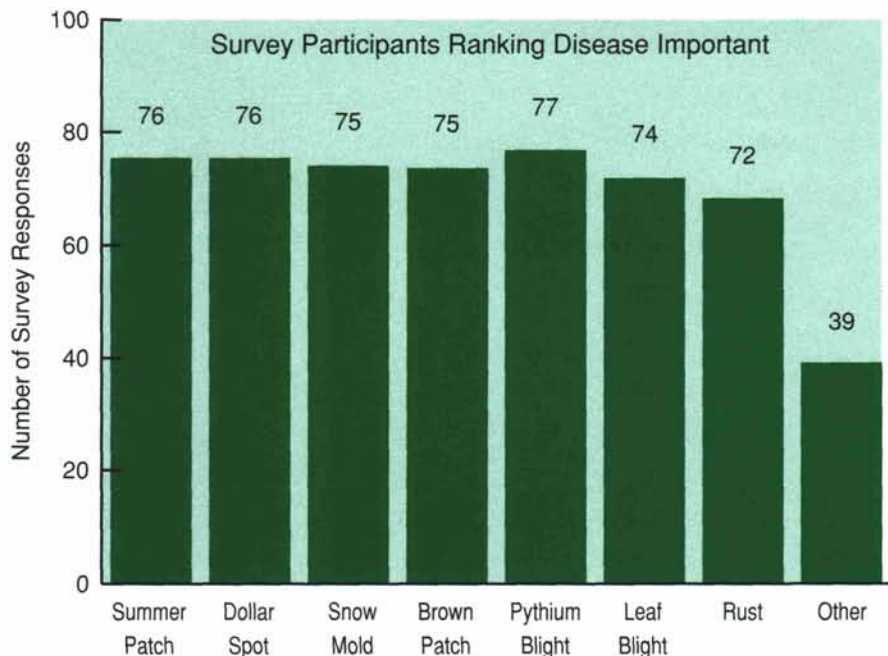


Figure 1

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dent ranked rust disease as the most important, and only three ranked snow mold and leaf blight as most important. These rankings do not agree with the severity of the diseases. For example, dollar spot rarely ever kills the turf but instead kills the leaves and makes the turf ugly. While this is important to the game, it is not a serious threat to the turf. Pythium blight (ranked as No. 1 by 23 superintendents) is a killing disease. Summer patch is also a killing disease, but brown patch is generally not. For the superintendent, an important or serious disease is one that develops rapidly, causes the turf to look poor, and is difficult or expensive to control. To us turf pathologists, dollar spot and brown patch are the simplest to control, while summer patch, Pythium blight and snow molds are the most challenging.

WHAT IS THE OVERALL RANKING OF THE DISEASES IN TERMS OF SERIOUSNESS?

In Figure 1, only those diseases ranked as No. 1 or most serious were presented. In Figure 2, a more complicated statistic is presented which gives weighted rankings to the diseases. By doing this, it more completely represents the importance of the diseases to superintendents. In general, the weighted rankings follow the same order as seen in Figure 1, except for brown patch which appears more important in Figure 3. Using this system, the ranking of diseases from most important to the least would follow this order:

1. Dollar spot
2. Pythium blight
3. Brown patch
4. Summer patch
5. Snow mold
6. Leaf blights
7. Others
8. Rust

For the superintendent, an important or serious disease is one that develops rapidly, causes the turf to look poor, and is difficult or expensive to control.

WHAT DO THESE DATA MEAN?

We think these data are useful in directing research and education. For example, more research is done on fungicides to control dollar spot than any other disease, and our survey supports this effort. However, research for biological control, cultural management, and breeding for resis-

tance could be increased. Pythium blight is another example of fungicide research focused on an important disease, but the development of alternative methods of control needs to be increased. Brown patch is receiving more attention in both fungicide and breeding research, and this is justifiable based on our survey. Summer patch is a difficult disease to control, and take-all patch and necrotic ring spot can be added to this list. Research on these similar types of diseases is progressing, and accomplishments are being made. Snow molds are not very important based on this survey, but they remain difficult to control. Those superintendents who have snow mold problems would certainly like to have better control options, but the lack of importance of this disease will not bring much research to Illinois.

The best hope for advances in controlling the minor diseases (snow mold, leaf blights, and rusts) are research from other areas of the country where these diseases are more important.

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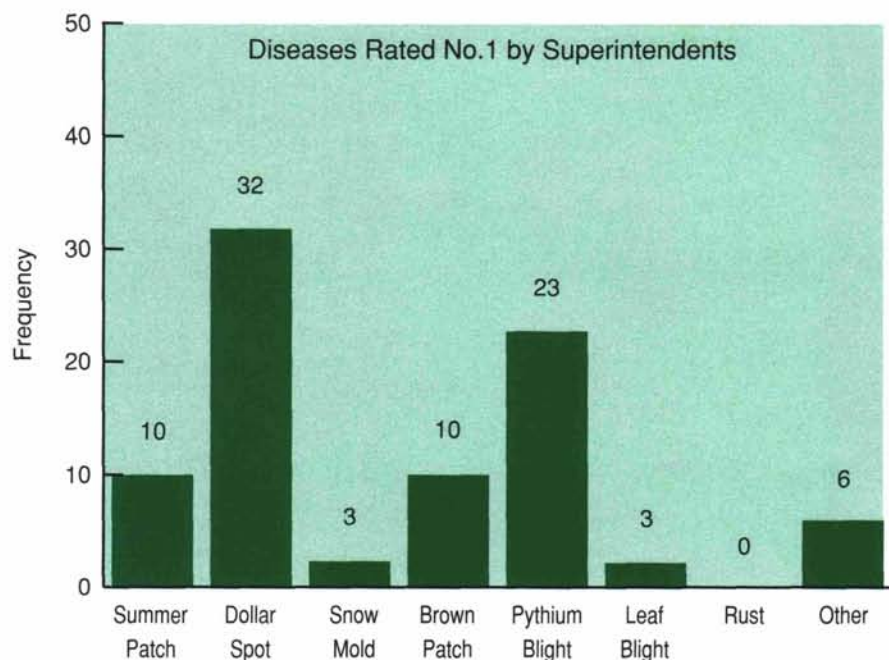


Figure 2

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HOW IMPORTANT ARE DISEASES TO THE SUPERINTENDENT?

Our survey did not ask you to rank the importance of disease management against weed management or turf management, but we did ask how much money you spend on fungicides each year.

THE AVERAGE YEARLY BUDGET OF FUNGICIDES: \$32,195

THE RANGE OF YEARLY BUDGETS FOR FUNGICIDES: \$3,000—\$100,000

If these figures are good estimates, the 300 golf courses in the greater Chicago area spend more than \$9.6 million dollars every year for fungicides. Fungicides are only one method used by most superintendents to manage dis-

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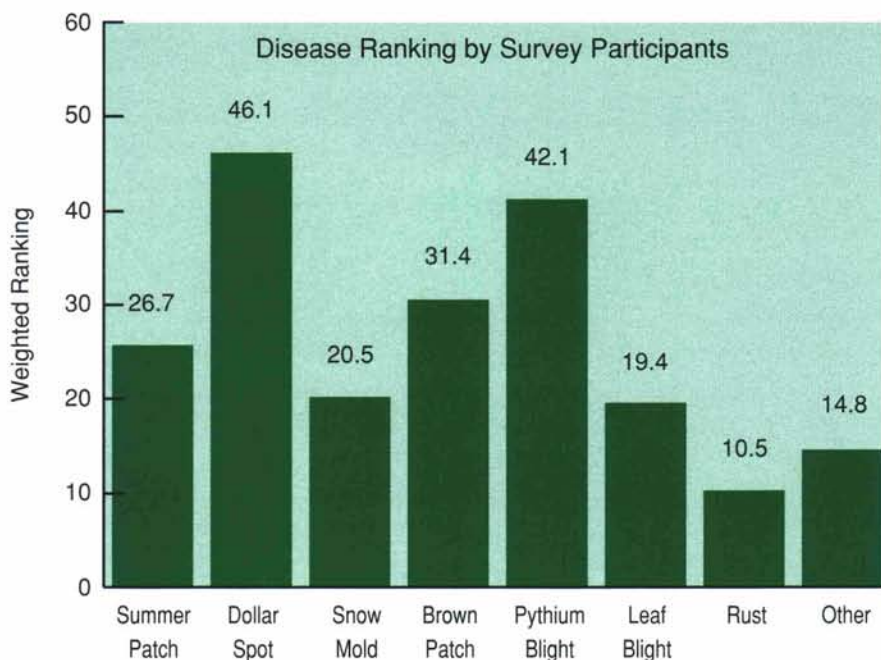


Figure 3

RAIN BIRD

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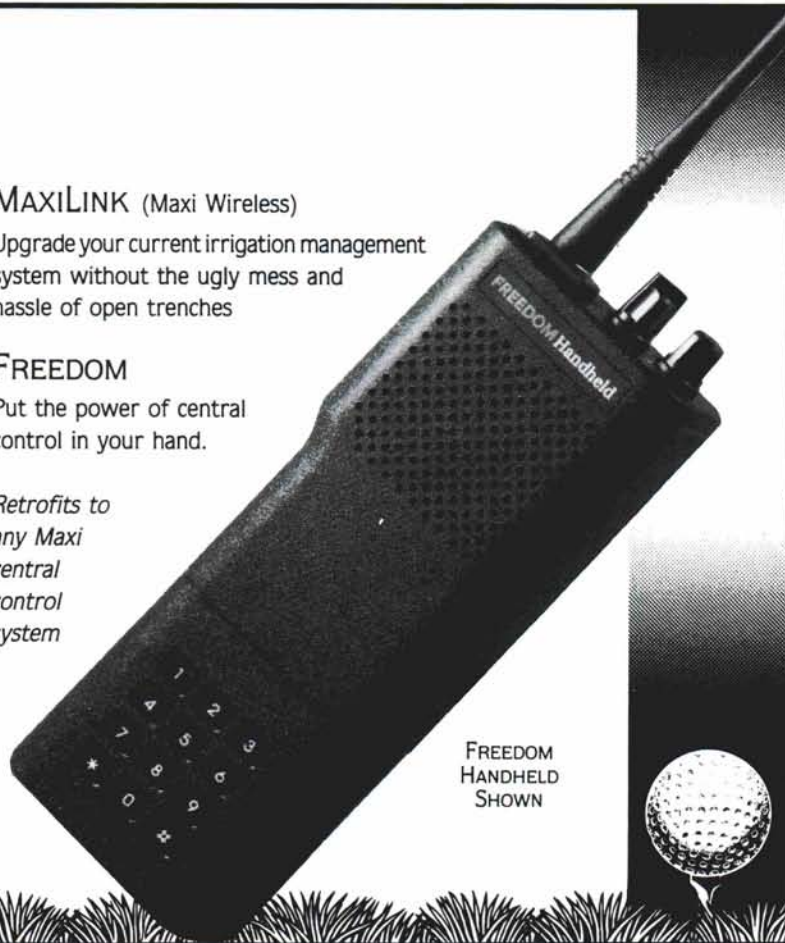
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Winter Mulching Helps Trees Prepare for Growing Season

It's the middle of winter, and there's nothing you can do to care for your trees until spring, right? Wrong. Applying mulch to the soil around trees in winter is a way to give them some "tender loving care" while they endure the Midwest's cold, harsh weather. You can apply mulch any time there is no significant snow cover.

"Think of mulching as giving your trees a blanket to keep them warm," says Larry Hall, vice president of Hendricksen, the Care of Trees. Mulch consists of organic materials such as wood chips, ground up corn cobs or composted leaves. As well as keeping root zones warm in winter (and cool in summer), mulch helps conserve moisture in the root-zone area. It even helps sustain microbes in the soil that help tree roots absorb water and nutrients.

A healthy root system is key to having a healthy tree. There is no question that mulch enhances and aids the root system. While many homeowners prefer to have grass

around their trees, grass roots actually compete with tree roots for water and nutrients. Since most of a tree's roots are in the top 12 to 18 inches of soil, grass roots can be aggressive rivals. Mulch helps give trees the advantage.

Hall suggests spreading a 2- to 4-inch layer of mulch around trees. For small trees (with trunks under 8 inches in diameter), the mulch should begin about 4 inches away from the tree base. This protects the bark from rodents that might otherwise burrow into the mulch and feed on the base of the tree. For larger trees which are not susceptible to such damage, the mulch can begin directly at the base of the tree.

For trees of all sizes, mulch should extend outward in a circle, ideally as far as the branches reach. But while mulch is good for trees, it is harmful to grass. So for those who wish to maintain grass beneath their trees, the mulch should only extend as far as possible without interfering with the lawn.

Some turf may need to be sacrificed, however. If grass is in an area that should be mulched, such as at the base of a large tree, place the mulch directly over the grass. Do not remove the grass, since digging could harm the tree's roots.

When mulching with fresh wood chips, be sure to apply fertilizer over the top of the mulch. This provides nutrients for the microorganisms that will decompose the wood chips. Without fertilizer, the microorganisms will use nutrients from the soil around the tree roots, reducing the nutrients available to the tree – and partially defeating the purpose of the mulch. Use 1 to 2 pounds of actual nitrogen per 1,000 square feet of mulched area.

Mulch is available through a number of sources. Many municipal forestry departments and commercial arborists provide wood chip mulch free of charge. Home and garden centers also sell a variety of mulches.

For a free pamphlet on mulching, call Hendricksen, the Care of Trees at 847-394-4220. ■

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ease. This staggering figure also points out the importance of both turf diseases and fungicides to the golf industry.

THE BOTTOM LINE!

Diseases are a major concern to the golf course superintendent, and a tremendous amount of energy and money are spent on these diseases each year. If a single fungicide application costs \$3,000 per course, and if research could reduce the number of fungicide applications by one each year, it would be a savings

of one million dollars. How can this be accomplished? Support research! Currently, the Illinois golf industry donates about \$10,000 for disease research. This means that for every dollar you spend on fungicides, a donation of one-tenth of a penny is currently being made. Golf course superintendents are great supporters of research because they understand how it can advance turf disease management. We all need to think of ways to increase support for research, as more support will mean faster development of better disease management tools. The information from this survey clearly shows that

turf diseases are important, and with more research will come better alternatives for managing them.

PLEASE REMEMBER THAT WE NEED YOUR INPUT: FILL OUT AND RETURN SURVEY CARDS!

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