

Introduction

There are many reasons why it's important to control disease in turfgrass. First and foremost, though, the presence or absence of disease plays a vital role in the success (attractiveness, vigor and playability) or failure of a turfgrass stand. Ultimately, that's how we as turfgrass managers are judged, right?

To solve disease problems on fine turfgrass we have to think like a police investigator. When a detective looks at a suspect in a particular crime, he considers three factors — opportunity, motive and means. In identifying and developing a treatment strategy for a turfgrass disease, we should consider three things as well — a susceptible host, a virulent pathogen (usually a particular species of fungi) and favorable environmental conditions for the pathogen.

Obviously, in building our disease-control strategy, we must first identify the disease, starting with

the three factors listed above, but also matching what we see in the field with the images in this handy guide.

Only after we make the correct diagnosis can we implement an effective strategy to eliminate or reduce the severity of the disease, usually employing the proper combination of cultural practices and chemical treatments.

While some diseases may, at a cursory glance, appear to be very similar (at least from eye level), a closer examination of the roots, stems and leaves of infected plants will almost always provide telltale signs leading to a correct diagnosis.

Look for foliar blight and leaf spots, rot on leaf sheaths, and dark and discolored roots. Aiding identification, the same diseases often occur in the same locations on a property from season to season, assuming similar environmental conditions develop. And that's where cultural practices come into play.

While we can't control what Mother Nature does, there are things we can do to lessen the possibility or reduce the severity of disease damage. These include using the proper amounts of fertility (especially nitrogen), irrigating for the needs of the turfgrass and not "by the clock," mowing at the desired height of the turfgrass, aerifying to improve drainage and alleviate compaction, and opening the turfgrass to more air movement and sunlight, when possible of course.

But because of the stresses we subject fine turfgrass — regardless of our best efforts to maintain it — diseases can and will sometimes develop. That's when we must employ a fungicide to provide the quality of turfgrass our customers have come to expect.

This guide contains images of common diseases and identification keys, including fungicide recommendations for solving specific disease problems. ■