

From the beginning of the season until the turf stops growing in the fall, *Helminthosporium* leaf, crown and root rot diseases are active on all turfgrass species. Without going any further, I am

already uncomfortable with my first sentence and the use of the generic word “*Helminthosporium*.” Although widely used, the pathogens that cause the leaf, crown and root rot diseases are not *Helminthosporium* type fungi.

In 1809 the genus “*Helminthosporium*” was established and over the first 120 years was a dumping ground for imperfect fungi. Imperfect fungi are fungi that do not fit into a taxonomic class due to the absence of a sexual stage. As time progressed fungi were placed in more appropriate genera like *Alternaria* and *Cercosporidium*.

In 1930 the genus *Drechslera* was created by Ito and then confirmed in 1959 by Shoemaker, who established the genus *Bipolaris*. Leonard and Suggs established the genus *Exserohilum* in 1974. Thus, the pathogens that cause “*Helminthosporium*” leaf, crown and root diseases are in the genera of *Drechslera*, *Bipolaris* and *Exserohilum*.

Since the three genera were once grouped as *Helminthosporium*, you could assume the spores are quite similar. For those of you with a microscope and good eyesight, the differences in conidia (asexual spore) among the genera are:

- 1) *Drechslera* – “cylindrical, not curved conidia, germinating from every cell...”
- 2) *Bipolaris* – “fusoid (spindle shaped) straight or curved and germinating by one germ tube from each end”
- 3) *Exserohilum* – “conidial hilum was strongly protuberant”

(reference – Alcorn, 1988, *Ann. Rev. Phytopathology*, 26:37-56)

On turf the primary leaf, crown and root rot pathogens collectively called *Helminthosporium* are found in the genera of *Drechslera* and *Bipolaris*.

At this point you may be thinking that this is just an academic issue and does not really apply to my problems in the field. I would probably have to agree with you to some extent. However,

What is in a Name?

BY KARL DANNEBERGER, PH.D.



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the generic term of *Helminthosporium* gives the impression that a singular fungus (or species group) causes leaf, crown and root rot disease across all turfgrass species and weather conditions, which is not the case.

For example, under cool wet conditions *Drechslera poae*, *D. siccans* and *Bipolaris cynodontis* are able to infect Kentucky bluegrass, perennial ryegrass and bermudagrass, respectively. *Drechslera gigantea* and *Bipolaris sorokiniana*, however, cause disease under hot humid conditions.

From a control standpoint cultural and chemical practices are similar, so maybe the differences are not that significant. For me, however, it is like asking someone what they are driving. And the reply is “a car.” It is a correct answer but does not tell you much. From a long enough distance all cars look the same, but we all know there is a difference between a Kia Soul and an Audi R8.

The second concern is the name “*Helminthosporium*.” We do have several disease names that have an associated fungal genus. A few examples include *Microdochium* Patch, *Ascochyta* Leaf Blight, *Curvularia* and *Cercospora* Leaf Spot. It seems odd, however, to name a group of diseases with a fungal genera — *Helminthosporium* — that is not even associated with turfgrasses.

We often misuse words that have appeared to have lost their original meaning. Words like refute, enormity, decimate and ultimate are commonly misused. In my opinion, “*Helminthosporium*” is the turfgrass profession's everyday word that is misused.

Karl Danneberger, Ph.D., *Golfdom's* science editor and a professor from The Ohio State University, can be reached at danneberger.1@osu.edu.