

Book Review

Smiley, R.W., Dernoeden, P.H., Clarke, B.C. 2005. *Compendium of Turfgrass Diseases*. 3rd Edition. APS Press – The American Phytopathological Society, St. Paul, USA, ISBN 0-89054-330-5. 109 pp.

As it is pointed out in the “Preface” this compendium provides a general and practical references – not only – for specialists in plant protection and plant disease diagnostic but also for those involved in the culture of fine grass, agribusiness, landscape architecture and other pertinent activities. Nearly 40,000 copies sold since 1983 well prove how greatly useful is this compendium.

In “Introduction” (p. 1–7) general information on turfgrasses management is provided and in Table 1 a list of 45 grass species belonging to genera: *Agropyron*, *Agrostis*, *Axonopus*, *Bromus*, *Cynodon*, *Deschampia*, *Eremochloa*, *Festuca*, *Koeleria*, *Lolium*, *Paspalum*, *Pennisetum*, *Phleum*, *Poa*, *Puccinellia*, *Stenotaphrum* and *Zoysia*.

Part I – “Noninfectious diseases” (p. 8–10) contains two chapters. Chapter “Biotic agents of noninfectious diseases” (p. 8–10) illustrates algae, physical soil conditions known as “black-layer”, mosses and insect pests. Chapter “Abiotic agents of noninfectious diseases” (p. 11–16) refers to mechanical, physical and chemical factors such as pesticides and fertilizers that might present a threat to turfgrasses growth, and also describes a harmfulness of nutrient deficiencies and water or ice.

Part II – “Infectious diseases caused by fungi” (p. 17–105) makes the main body of this compendium and contains three chapters. Chapter “Fungal diseases of foliage” (p. 17–56) describes twenty nine categories of diseases caused by *Cephalosporium*, *Cercospora*, *Septoria* and *Typhula* species. Chapter 2 “Fungal diseases of foliage and/or roots” (p. 56–88) describes ten categories of diseases caused by *Colletotrichum*, *Bipolaris*, *Drechslera*, *Fusarium*, *Pythium* and *Rhizoctonia* species. Chapter 3 “Fungal diseases of roots” (p. 88–105) contains six categories of diseases caused by *Ophiopharella*, *Gaeumannomyces* and *Ophiobolus* species. All diseases are characterized according to six following features: symptoms, casual agent, disease cycle, epidemiology, control, and selected references.

Part III – “Diseases and disorders caused by other pathogens and biotic agents” (p. 106–130) contains a key for identification of genera of plant parasitic nematodes on turfgrasses (p. 106–108) as well as descriptions of grass diseases caused by nematodes such as *Mesocriconema ornata*, *Peltamigratus secundatum*, *Meloidogyne incognita*, *Hoplolaimus* spp. and *Pratylenchus neglectus*. Of special interest is chapter “Viral diseases” (p. 126–129) in which 26 viral agents reported in turfgrasses are listed indicating: virus group, turf host genera, ways of transmission and geographic distribution.

Part IV – “Ecology and taxonomy of pathogenic fungi” (p. 130–138) provides very interesting general information on ecological groupings of: (1) pathogens and parasites, (2) pathogens and their environment, and (3) very informative and useful table 7 titled “Five kingdoms of life and taxonomic groupings of pathogens and parasites of turfgrasses” (p. 134–137).

Part V – “Diseases control strategy” (p. 139–147) provides several useful information on turfgrass protection measures but of special interest and practical value for readers will be instructions on management of turfgrass climate and culture. Apart of practical instructions as to the mowing and thatch control, also practical recommendations as to the use of fumigants, fungicides, nematicides and biological control methods are provided.

Part VI – “Diseases diagnosis” (p. 148–153) provides information on diagnostic procedures and a table “Guide to turfgrass diseases and diseases groups” (p. 150–153).

A “Glossary” (p. 155–162) and “Index” (p. 163–167) greatly facilitate use of this highly valuable book, which I strongly recommend to plant protection specialists and turf grass managers.

Jerzy J. Lipa
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