Best Management Practices for Saline and Sodic Turfgrass Soils: Assessment and Reclamation


Drs. Carrow and Duncan have created an update to their previous book published in 1998 entitled Salt-Affected Turfgrass Sites. That book has been a staple for those studying plant and soil sciences relating to turfgrass management and those actively managing saline turfgrass sites, particularly golf courses, athletic fields, parks, and amenity landscapes. This new book includes greatly expanded sections on the basics of salt-affected sites, soil and water testing, soil chemistry and physical properties, plant responses, site management and reclamation. These enhancements include more in-depth descriptions of common soil testing methods, the science behind them, comparisons, and possible pitfalls. The authors add discussions of new technologies and their use and effectiveness. For example, they added descriptions of field monitoring techniques that can be used for research and site management. Additional new sections include drainage technology, plant tissue analysis sections, irrigation systems, and a variety of cultural practices to address salinity and related issues. Another new section focuses on nontraditional uses of turfgrasses to reclaim sites. Recommendations for management are centered on best management practices (BMPs) and provide direction in how to proceed.

The objectives of the book are clearly laid out in the preface. They are (i) to incorporate scientific and practical recommendations; (ii) to compile all information needed to address salinity issues into one source; (iii) to take a field problem approach, meaning that salinity isn’t one problem but the interaction of many situations and that each site is unique; (iv) to encourage continuing education; and (v) to encourage the use of salt-tolerant grasses. Each objective is carefully addressed in the subsequent chapters in an unbiased way using a consistently approachable writing style.

Turfgrass management is chock-full of situations that are truly unique to agriculture. Carrow and Duncan address many of these that are presented to practitioners (and researchers) daily and that are fodder for misinformation, leading to poor management choices or wasted resources. The authors explain these situations carefully and thoroughly, often debunking myths and misinformation in an industry that has produced many questionable and costly solutions.

What could be a very densely written book packed with jargon is a reference that is a good combination of technical information and practical application. This makes the text usable by scientists in turfgrass management and practitioners in the field. An example is the title of Table 5.1: “Essential questions for turf managers (i.e., the customer paying for the services) to ask soil-and plant-testing laboratories to obtain the most specific and appropriate test information on a turfgrass site.” In this case, clear and creative writing presents complex issues that are distilled to five straightforward questions that encompass the major issues of soil testing. Broad concepts are presented, as well as in-depth topics unique to turfgrass management. Again, very useful for practitioners and those teaching the concepts. It’s apparent that the authors have honed their message in the book through presentations at workshops, seminars, and classes to make the message clear, understandable, and complete.

I expect that this book will primarily serve as a reference book, but it could also be used as a textbook for advanced turfgrass management courses—not just one course, but several,