

Turf textbooks 101: what's currently being taught

Editor's note: The idea behind this article was hatched at a meeting for STMA Committee members before the association's conference opened in Austin last January. Chad Follis, a horticulture instructor at Mineral Area College, Park Hills, MO gets an "A" for thinking it would be interesting to poll turfgrass professors on their favorite textbooks.

HERE ARE THE QUESTIONS we sent some of the most prominent turfgrass teaching professionals in the country:

What textbook(s) is required for your introductory college course on turfgrass management? Why was this book chosen?

What textbook(s) is required for any advanced college courses related to pest management, soils, plant science?

Besides your introductory turf text and, most likely, *Sports Fields: A Manual for Design, Construction and Maintenance*, what other turf book(s) would you recommend turf managers have on their reference shelves?

GREG BELL, PhD,
Oklahoma State

I use Nick Christians' book, *Fundamentals of Turfgrass Management*, for my intro-

ductory turfgrass class and will be using my own book, *Turfgrass Physiology and Ecology: Advanced Management Principles* that was published in January, for my advanced class. I also like Al Turgeon's *Turfgrass Management*, as an introductory text. However, I prefer the Christians' book slightly because it is a little more practical and a little bit easier to read.

I believe that Jim Beard's *Turfgrass: Science and Culture*, is still a good reference in spite of being published in 1973, and his book, *Turf Management for Golf Courses*, and the Bert McCarty et al. book, *Best Golf Course Management Practices*, are also excellent for understanding and practicing the agronomic practices necessary for sports field management.

For basic field construction and maintenance questions I usually refer to Puhalla, Krans, and Goatley, *Sports Fields: A Manual for Design, Construction, and Maintenance*.

The McEntire and Jakobsen book, *Practical Drainage for Golf, Sportsturf, and Horticulture* is great for learning drainage principles, and the Pira book, *A Guide to Golf Course Irrigation System Design and Drainage*, is good for learning more advanced design and theory for both drainage and irrigation. I look to Carrow, Waddington, and Rieke, *Turfgrass Soil Fertility and Chemical Problems: Assessment and Management*, for help with soil problems.

My favorite disease book is Houston Couch, *Diseases of Turfgrass*, although it pre-dates some of the recently discovered diseases and some major problems such as gray leaf spot on perennial rye. The *Compendium of Turfgrass Diseases*, 3rd edition, by Smiley, Dernoeden, and Clarke is also very good, reasonably priced, and more up to date. My favorite insect book is Dan Potter's *Destructive Turfgrass Insects*.

TROY MCQUILLEN,
Kirkwood Community College (IA)

Fundamentals of Turfgrass Management by Nick Christians of Iowa State University is the required textbook for our introductory

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college course on turfgrass management. We like it because it was written by an Iowa author who often reflects what you might expect from turfgrass in the Midwest. Teaching in an applied science program, it's nice to have textbooks that reflect the hands-on learning techniques we as faculty promote in the classroom. This book like many adds lots of color images in the appendix sections and has industry-related photos that grab the students' attention when reading the chapters.

The book was also chosen because it's an "easy read." I believe that when you are in the field and need to reference back to a textbook you want something that has a detailed index that allows you to flip to the chapter/section of the textbook for a quick refresher and then back to work. This book does that really well.

Other books I would recommend to turf managers: *Sports Fields: A Construction and Maintenance Manual*, from the American Sports Builders Association; *Mathematics of Turfgrass Industry*, by Nick Christians and Michael Agnew; *Practical Drainage for Golf, SportsTurf, and Horticulture* by McIntyre and Jakobsen; and *Poa Annua*, by Vargas and Turgeon.

**BRANDON HORVATH, PhD,
University of Tennessee**

For the introductory turfgrass lab course I teach I recommend *The Mathematics of Turfgrass Maintenance* by Nick Christians and Michael Agnew. Other texts I would recommend for a reference shelf would include: *Management of Turfgrass Diseases* by Joseph M. Vargas Jr., and *Compendium of Turfgrass Diseases*, edited by Richard Smiley, Peter Dernoeden, and Bruce Clarke.

**JOHN STIER, PhD,
University of Wisconsin**

Fundamentals of Turfgrass Science by Dr Nick Christians. It is complete and by far the best value for the money of any book available. University faculties are under tremendous pressure to reduce the cost of textbooks, both from the public media and from academic administrators.

I like the book *Practical Drainage for Golf, SportsTurf, and Horticulture*, Christians and Agnew's book on turfgrass mathe-

Fundamentals of Turfgrass Science by Dr Nick Christians. It is complete and by far the best value for the money of any book available. University faculties are under tremendous pressure to reduce the cost of textbooks, both from the public media and from academic administrators. — John Stier, PhD

matics, and Jim Beard's 1973 *Turfgrass Science and Culture*. It's dated but still the best book available beyond an introductory text.

**FRANK ROSSI, PhD,
Cornell University**

I use Bob Emmons' *Turfgrass Science and Management* from Delmar Publishing because it is THE most practical text I have found. It lays an excellent foundation for students to know the basics.

The problem with textbooks is that beyond the basics things are changing so rapidly that by the time a book comes out it is already 2-3 years old. Therefore I don't recommend texts as much as I used to for

managers but instead recommend that they access the Turfgrass Information File (TGIF) at Michigan State (STMA members they can access it free) for specialized content.

I am very fond of Doug Brede's *Turfgrass Maintenance Reduction Handbook* for turf management beyond the sports field. It is the only text I have seen that takes a progressive look at where we need to be heading as an industry.

**GRADY MILLER, PhD,
North Carolina State**

I do not teach our introductory course at NC State so I'm not 100% sure what

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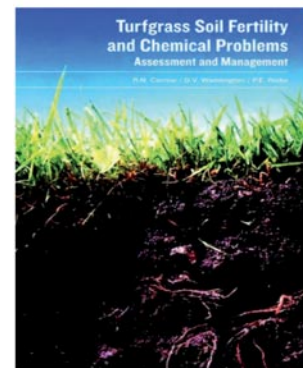
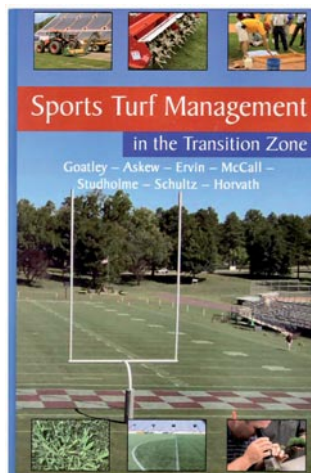
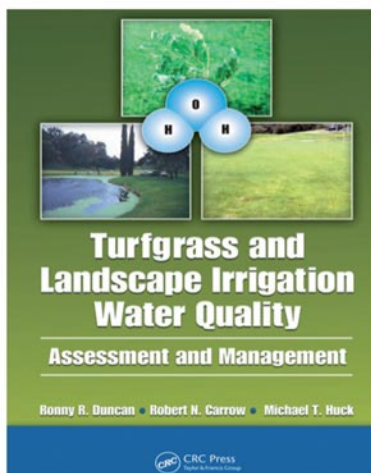
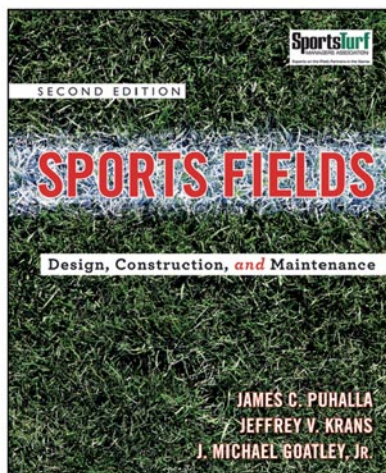
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I am still very partial to every turfgrass manager having a copy of Beard's 1973 *Turfgrass Science and Culture* regardless of how old it is. I was always told it was "The Bible" for turfgrass managers and I still think it is if one really wants to get into the nitty gritty of why grasses do what they do. — Michael Goatley, PhD

text is used. My understanding is that they do not require a text, but give several texts as suitable for reference. The library can hold these so our students can go by and use them as needed. To be honest, it does not take a very sophisticated text for the introductory class.

There are a number of suitable texts that fit into an "introductory turfgrass text" classification, including: *Turfgrass Management* by Turgeon, *Turfgrass Science and Management* by Emmons, and *Fundamentals of Turfgrass Management* by Christians. All these have multiple editions.

Faculty prefer to use "course-packs" with lectures/handouts for students and rely on students to seek out additional references if additional information is needed.

I consider *Sports Fields: A Manual for Design, Construction and Maintenance*, to be a more specialized book that would be used in a second class or a more specialized class. I think it is an excellent reference for field managers. I would highly suggest *Best Golf Course Management Practices* by Bert McCarty. While this by title seems to be only a golf course text, it really is not. The reference material on items such as soil

and tissue testing, water quality, turfgrass mathematics, etc., is excellent for sport turf managers. Plus, many of the grasses used on golf courses are also used on sports fields, so all the extensive pest management chapters are also excellent.

Lastly, I really suggest managers get a copy of *The Site Calculations Pocket Reference* by Ed Hannan. It has every calculation or conversation for turfgrass construction and management situation that could be imagined.

**ANDREW MCNITT, PhD,
Penn State**

Our introductory turf book *Turfgrass Management* by Al Turgeon. Another great textbook/reference is *Turfgrass Soil Fertility and Chemical Problems* by Carrow, Waddington, and Rieke. Outstanding book.

A third that will be coming out later this year is the *Turfgrass Monograph* from the Crop Science Society of America. It is not a text but a reference used mostly by researchers and it has a listing and updates on most all the peer-reviewed research in turfgrass. It likely will be available on agronomy.org eventually.

**BETH GUERTAL, PhD,
Auburn University**

I do not have a required textbook. If I were to pick one it would be *Nick Christians'* as it is an excellent basic resource, especially for those working with cool-season grasses, as that is a bit of the focus of the text. Instead, I use a combination of web resources and extension documents; because so many of my students stay and work in the warm-season systems of the Southeast that is why I do not require the text. I do recommend it as an excellent resource.

For reference shelves, I would recommend *Turfgrass Soil Fertility and Chemical Problems* by Carrow, Waddington, and Rieke. It is a thorough and well written text. Quite useful. *Turgeon's book* is good, too.

**BRIAN SCOTT, PROFESSOR,
Mt. San Antonio College**

We use *Nick Christians'* book. It has great photos and illustrations plus it is easy to read and understand. Other books that I recommend are the *Western Fertilizer Handbook* (latest Horticulture Edition available) and the *Mathematics of Turfgrass Manage-*

ment put out by GCSAA. And even though it's all in metric, *Growing Media for Turf and Ornamental Plants* by Handrek, from Australia, has great practical applications.

**MICHAEL GOATLEY, PhD,
Virginia Tech**

I have used both Christians' *Fundamentals of Turfgrass Management* and *Turfgrass Management* by Al Turgeon for intro turf texts over the years and like both of them very much; both are well written, comprehensive, and contain excellent ideas for labs, projects, etc. The only reason I changed up was just to try something new for class. I am still very partial to every turfgrass manager having a copy of Beard's 1973 *Turfgrass Science and Culture* regardless of how old it is. I was always told it was "The Bible" for turfgrass managers and I still think it is if one really wants to get into the nitty gritty of why grasses do what they do. The other books I use a lot as references and think that sports turf managers would

also use are *Turfgrass Soil Fertility and Chemical Problems* by Carrow, Waddington, and Rieke, *Managing Turfgrass Pests* by Watschke, Dernoeden, and Shetlar, and whatever the latest edition is of *The Mathematics of Turfgrass Maintenance*. That's just me. I've got a slew of other books on my shelf by some other great authors, and a few of them are very specific to topic (like Houston Couch's *Diseases of Turfgrasses*) but these are the ones I think folks would reach for fairly regularly. And though you didn't ask, I still regularly look at *The Seven Habits of Highly Effective People* by Stephen Covey to put focus and perspective on things from time to time.

**TREY ROGERS, PhD,
Michigan State**

I have always used the Turgeon book on turfgrass management, at least seven editions to my knowledge. Have looked at books by both Emmons and Christians, and they would be acceptable to me as well,

I really do not focus too much on specific books for sports turf. But, the soils book by Waddington, Rieke, and Carrow should be automatic.

but just have not changed [from Turgeon]. I also use my paperback book published in 2007, *Lawn Geek*. I think you need a book or two regarding pest management but here you might buy where you live/work, as location may play a role. Since I actually do about 90-10 ratio teaching of golf vs. sports turf (people outside of Michigan just associate me with the latter because of projects/research) I really do not focus too much on specific books for sports turf. But, the soils book by Waddington, Rieke, and Carrow should be automatic. ■

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