



## Plant Science

---

### Andrew McNitt Ph.D.

**Program Coordinator, Turfgrass Science Major**

**Professor of Soil Science**

**Director, Center for Sports Surface Research**

445 Agricultural Sciences and Industries Building  
University Park, PA 16802

Email: [asm4@psu.edu](mailto:asm4@psu.edu)

Work Phone: 814-863-1368

#### Websites

- [Personal site \[http://www.personal.psu.edu/faculty/a/s/asm4/\]](http://www.personal.psu.edu/faculty/a/s/asm4/)
- [Center for Sports Surface Research \[http://plantscience.psu.edu/research/centers/ssrc\]](http://plantscience.psu.edu/research/centers/ssrc)

#### Education

B.S. Horticulture, The Pennsylvania State University, 1983

M.S. Agronomy, The Pennsylvania State University, 1993

Ph.D. Soil Science, The Pennsylvania State University, 2000



#### Responsibilities and Interests:

My research interests include maximizing the safety and playability of athletic field playing surfaces through development of improved construction and maintenance techniques. Current projects include: Maximizing the surface stability of sand rootzones through manipulation of maintenance practices; Evaluation of bentgrass root morphology and water use in rootzones of varying depths; Evaluation of playing surface characteristics of infilled synthetic turf systems; Evaluation of sand topdressing procedures for varying bentgrass varieties. I helped develop and teach the turfgrass curriculum offered via the internet as part of Penn State's World Campus. I also conduct research relating to athletic field and golf green construction.

#### Professional Background:

- Professor - 2012 - present
- Associate Professor - 2006–2012
- Assistant Professor - 2000–2006
- Faculty Instructor Turfgrass - 1998–1999
- Turfgrass Project Associate - 1993–1997
- Research Support Associate - 1991–1993
- Associate County Agriculture agent, Philadelphia - 1984–1991

#### Selected Publications:

1. McNitt, A.S. and P.J. Landschoot. 2005. The effects of soil reinforcing materials on the traction and divot resistance of a sand rootzone. *International Turfgrass Society Research Journal*. 10:115-1123.
2. Landschoot, P.J., B.S. Park, A.S. McNitt, and M.A. Fidanza. 2004. Affect of Dazomet on Annual Bluegrass Emergence and Creeping Bentgrass Establishment in Putting Green Turf. *HortScience* 39(6):1478–1482.

3. McNitt, A.S., P.J. Landschoot, and D. Petrunak. 2004. Evaluation of the playing surface quality of an infilled synthetic turf system, Proceedings 1st International Conference Turfgrass Management and Science for Sports Fields. Athens, Greece. June 2–7. Acta Horticulturae ISHS No. 661. pp. 559-565.
4. McNitt, A.S., P.J. Landschoot and D.V. Waddington. 2004. Effects of turfgrass, cutting height, and soil conditions on traction. Proceedings 1st International Conference Turfgrass Management and Science for Sports Fields. Athens, Greece. June 2–7. Acta Horticulturae ISHS No. 661. pp. 39-49.
5. McNitt, A.S., and P.J. Landschoot. 2003. Effects of turfgrass and soil conditions on traction. Acta Horticulturae ISHS. (in press) (principal author)
6. McNitt, A.S. and P.J. Landschoot. 2003. The effects of soil reinforcing materials on the surface hardness, soil bulk density, and water content of a sand root zone. *Crop Science*.43:957-966.
7. Yi, H., B. Mittal, V.M. Puri, A.S. McNitt, and C.F. Mancino. 2002. Measurement of bulk mechanical properties and modeling the load-response of rootzone sands. Part 3: Effect of organics and moisture content on continuous sand mixtures. *Particulate Sci. and Tech. J.* 20:125-157. (designed and constructed experimental units, data interpretation, manuscript review)
8. McNitt, A.S. and P.J. Landschoot. 2001. The effects of soil-reinforcing inclusions in an athletic field root-zone. *International Turfgrass Society Research Journal.* 9:565-573.
9. McNitt, A.S. and P.J. Landschoot. 2001. Evaluation of a modular turfgrass system amended with shredded carpet. *International Turfgrass Society Research Journal.* 9:559-564.
10. McNitt, A. S. and G.F. Johnson. 2001. Active learning through distance education: Design and implementation of a turfgrass soils laboratory. *Int. Turfgrass Soc. Res. J.* 9:91-94. (principal author)
11. Mittal B., H. Yi, V.M. Puri, A.S. McNitt, and C.F. Mancino. 2001. Measurement of bulk mechanical properties and modeling the load-response of rootzone sands. Part 2: Effect of moisture on continuous sand mixtures. *Particulate Sci. and Tech. J.* 19(4):369-386. (designed and constructed experimental units, data interpretation, manuscript review)
12. McNitt, A.S., R.O. Middour, and D.V. Waddington. 1997. "Development and Evaluation of a Method to Measure Traction on Turfgrass Surfaces," *Journal of Testing and Evaluation, ASTM, Vol. 25, No. 1, January, p. 99-107.* (principal author)
13. Waddington, D.V., A.S. McNitt, and P.J. Landschoot. 1997. "Constructing and maintaining safe playing surfaces," *International Symposium on Safety in Baseball and Softball, ASTM STP 1313, Earl F. Hoerner and Frances A. Cosgrave, Eds., American Society for Testing and Materials, p. 107-113.*
14. Landschoot, P.J. and A.S. McNitt. 1997. "Effect of nitrogen fertilizers on suppression of dollar spot disease of *Agrostis stolonifera* L." *International Turfgrass Research Society Journal.* 8:905-912. *International Turfgrass Society Research Journal, Vol. 8. 1997, p. 905-911.*
15. McNitt, A.S., D.V. Waddington, and R.O. Middour. 1996. "Traction Measurement on Natural Turf," *Safety in American Football, ASTM STP 1305, Earl F. Hoerner, Ed., American Society for Testing and Materials, p. 145-155.*

## Research Interests

[Turfgrass Science \[http://plantscience.psu.edu/directory/areas-of-research/turfgrass-science\]](http://plantscience.psu.edu/directory/areas-of-research/turfgrass-science)