



University turf programs, synthetic field providers partnering for research

WITHIN HOURS OF ONE ANOTHER two interesting news bulletins came across the wire in late August. The first said that Penn State and FieldTurf have partnered to develop the world's first facility dedicated to sports surface research; soon thereafter, an announcement from the University of Tennessee that it had agreed with AstroTurf to create the Center for Safer Athletic Fields to compare natural grass playing surfaces to synthetic surfaces.

PSU and FieldTurf's 5-year commitment will research synthetic turf, running tracks and indoor sports surfaces. The goal is to further accelerate safety within the entire synthetic sports surfacing industry. The new Center for Sports Surface Research will be an intercollegiate program managed within the Department of Crop and Soil Sciences in Penn State's College of Agricultural Sciences and headed by Andrew McNitt, an associate professor of soil science.

Penn State's McNitt has been studying synthetic turf for many years and is well regarded in the world of sports surface research, particularly as it relates to natural and synthetic turf, and conducts research relating to athletic field surface characterization and golf green construction and maintenance.

"This is the next logical step. It's a natural progression in our research. Every NFL franchise has at least one synthetic practice surface, and half of them have synthetic turf on their game field," said McNitt. "I'm getting calls from school board members, athletic directors, coaches and concerned parents daily asking for unbiased information about synthetic turf versus natural turf. If university researchers aren't going to do the research to assess and accurately compare synthetic surfaces to natural turfgrass, who is?"

"People used to view synthetic turf as a threat to natural grass and something to be opposed. There is room for both surfaces. Whether we like it or not the market has already moved and as sports turf managers and turfgrass researchers we better be ready with some answers when

➤ **DR. MCNITT** has led synthetic turf research at Penn State for more than 8 years.

the public starts asking questions or else we will be left behind in the decision making process one more time," McNitt said.

"For us at Penn State, the goal is: whether it's natural turfgrass or synthetic, we're interested in providing the best surface possible. The goals are the same!

"There are a lot of companies selling synthetic turf; what FieldTurf has done is to put some better science behind this. The center's goal is to marry human movement and surface manipulation to maximize both playability and safety," he said.

In order to implement the science, McNitt will work with Thomas Serensits, manager of the Center for Sports Turf Research. "Tom has tremendous experience formerly working for the Philadelphia Eagles and Virginia Tech doing field maintenance and implementing research. Dianne Petrunak leads the center's research and has been involved in synthetic turf research for more than 8 years," McNitt said. "Dianne's background is in plant pathology and her expertise enabled us to quickly and accurately conduct research on the relationship between synthetic turf and MRSA (see <http://ssrc.psu.edu/staph/index.cfm>)."

Others involved in the Center at Penn State include: Dr. John Challis, director of the Biomechanics Lab in the Department of Kinesiology; Dr. George Salvatare, the University's head athletic trainer; and Dr. Gary Purdew, head of the Carcinogenic and Toxicology Center at Penn State, among others. "Together we hope our research leads to improvement in the quality and safety of all sports surfaces including basketball floors, running tracks, wrestling mats and of course natural and synthetic turf," said McNitt.

"Our partnership with Penn State brings two industry research leaders together," said Joe Fields, chief executive officer of FieldTurf. "The original inspiration for FieldTurf was to provide a surface that would enable athletes to attain maximum performance while minimizing injuries and we believe that this partnership will help ensure that we continue to develop safe and performing surfaces to the athletes that we serve."

For more information visit <http://ssrc.psu.edu/>.

UT and AstroTurf

After more than a year of intense planning, The University of Tennessee has partnered with AstroTurf to create the Center for Safer Athletic Fields, which will compare natural grass playing surfaces to synthetic surfaces. The Center will be located in Knoxville at the UT Institute of Agriculture's East Tennessee Research and Education Center. This geographic location will enable scientists to conduct research on a variety of surfaces from both cool and warm season climates. The goal is improving athletic performance and reducing injuries through an on-going comparison of synthetic surfaces to natural grass.

The outdoor research facility will comprise 60 small-scale athletic

research fields constructed from a variety of playing surfaces. UT turfgrass scientists will compare the safety and performance of a range of synthetic playing surfaces to natural grass surfaces.

While determining the safety and performance of AstroTurf products compared to various natural turfgrass systems, UT turfgrass scientists will also monitor these relationships over time. Additionally, they will evaluate the environmental impacts of each system. The research should lead to the development of new, more accurate methods for testing the safety and performance of all synthetic turf systems.

Dr. John Sorochoan, associate professor and turfgrass specialist with the Department of Plant Sciences in the UT College of Agricultural Sciences and Natural Resources, has been researching in the sports turf industry for more than 15 years and sits on the board member of the Sports Turf Managers Association (STMA). Dr. Jim Brosnan, assistant professor and turfgrass specialist has developed tools for testing sports turf surfaces. He is the STMA representative to the American Society of Testing and Materials (ASTM) and Technical Editor of *SportsTurf* magazine. The UT Turfgrass Team is rounded out by Tom Samples, UT Extension turfgrass specialist and Brandon Horvath, a turfgrass pathologist.

"This is a pioneering effort in conducting research with an emphasis on athletic field safety," Brosnan said. "Historically, sports turf research and maintenance have not been well supported. We are honored to partner with AstroTurf. Because of our vision for a compre-

hensive research project, we selected the only partner that controls all facets of synthetic turf manufacturing from polymer development to field installation."

"Advancing the science behind our products is critical to delivering the best solutions for athletes and the sports turf industry," said Bryan Peeples, president of AstroTurf. "This research partnership demonstrates AstroTurf's commitment to enabling our industry to provide the safest systems for the players and the environment."

Natural surfaces will be planted with bermudagrass, Kentucky bluegrass and others. Both mechanical and human studies will be performed to create "real play" conditions. Rod Walters, world-renowned in the athletic training industry, helped with the design and provided input on the infrastructure for the research areas to be involved in human performance and biomechanics. The research will be scientifically-based for statistical analysis.

"We are interested in credible, unbiased, fact-based research to test our products," said Peeples. "Taking the lead in developing standards that do not exist today allows us to develop the best products. When a client says 'Show me the data,' we will have what they need to make an informed decision."

Construction of the Center will take 6-8 weeks with ground breaking taking place this fall. For more information visit <http://www.turf.tennessee.edu>. ■



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