

tivars that did considerably well, even at 5/8 mowing height, so watch out for those!

New this fall we have established a Kentucky bluegrass trial that includes common types, compacts, hybrids, monostands and blends. With some pretty intense management at the onset, we were able to go from “seed to play” in about 7 weeks and we will be evaluating wear tolerance in the spring of 2012. Also new this winter is an overseeding study that we will continue as long as the ground isn’t snow-covered. We are looking at germination of annual, perennial and tetraploid ryegrasses during the winter months.

Lastly, we are very fortunate to have a great relationship with the Director of Sports Medicine, Dr. Tim Hewett, who has joined forces with us on some grants and research projects. His specialty is ACL injury, so his input on traction research is invaluable. We recently acquired a pneumatic foot that can simulate athlete maneuvers like starting, stopping and cutting. The beauty about this equipment is that we do not have to have plots of turf installed at the turf facility at cost to a sponsor, as we can test small samples in the lab.

We continue to test & look at synthetic turf hardness in relation to Gmax and Head Injury Criteria (HIC) and we would



» THIS PNEUMATIC FOOT can simulate athlete maneuvers like starting, stopping and cutting, and Ohio State researchers can test small samples in the lab rather than having to install costly plots.

Title of Research Study, Ohio State	Principle Investigator
The use of FeHEDTA herbicides as biorational broadleaf weed controls	Dr. David Gardner & Emily Horner
Timing of application of Cavalcade PQ for post/Pre emergence control of crabgrass	
Herbicide programs for seeding/overseeding Broadleaf weed control products	
Microclover and turfgrass ecosystems	Dr. John Street & Deb Holdren
Dispersible granular technology	All turfgrass science team
The effect of various cultural practices on putting green firmness	Arly Drake (MS) & Dr. T. Karl Danneberger
Athletic field protection systems	Matt Williams (PhD) & Dr. T. Karl Danneberger
Turfgrass physiology in shade	Aneta Studzinska (PhD) & Dr. T. Karl Danneberger (completed 2011)
Impact of dew on turf health	Dr. T. Karl Danneberger
The effect of enhanced ultraviolet light on turfgrass physiology	Ed Nangle (PhD) & Dr. David Gardner
The effects of compost topdressing on native soil health and sports turf playing quality	Marcela Munoz (MS) & Dr. John Street (completed 2011)
Models to measure carbon sequestration in the landscape	Gina Zirkle (MS) (completed 2011)
Ecologically sustainable turfgrass	Andrew Muntz (MS) & Dr. David Gardner
Drought resistant perennial ryegrass	Pam Sherratt & Dr. John Street
Natural and synthetic fertilizers	
Granular plant growth regulators	
Winter over-seeding with annual, perennial, and tetraploid ryegrasses	
Kentucky bluegrass establishment and wear tolerance	
Effects of surface characteristics on the traction and hardness of synthetic and natural turf	Joe Rimelspach & Todd Hicks
Fungicide efficacy trials	
Bacterial wilt	
Insecticide efficacy trials	Dr. Dave Shetlar & Jen Andon

like to further investigate critical fall heights in relation to sports like rugby and football, to make sure our playing surfaces do not contribute to concussions. There are many projects we’d like to do, we just need the funding! For more info on our Sports Turf Program, see our website: Buckeyeturf.osu.edu or visit us on Facebook (Buckeye Turf) and Twitter (Osu-turf).-by Pam Sherratt, sports turf extension specialist

RUTGERS UNIVERSITY

The following is a synopsis of ongoing and future sports turf research projects at Rutgers.

Traffic stress research concluded on the

2006 National Turfgrass Evaluation Program (NTEP) Tall Fescue Trial at Rutgers Hort. Farm II in North Brunswick, NJ in 2011. Wear and compaction were applied to the trial in Spring 2009 and 2011; Summer 2008 and 2010; and Fall 2007 and 2009. Wear stress was applied with the Rutgers Wear Simulator, a modified M24C5A Sweepster in which the steel brush on the unit was replaced with rubber paddles. The rotational movements of the paddles causes wear. The simulator allows control of both forward operating speed as well as paddle rpm. Compaction was applied with a 1.5-ton roller.

Results suggest that attention should be given to tall fescue variety selection for

sports fields scheduled for fall use; entry differences were more pronounced after traffic in Fall 2009 than Spring 2009 and Summer 2010. In addition to traffic stress data, turfgrass quality and brown patch susceptibility were assessed in the absence of wear since the inception of the test. Data are currently being summarized for a Rutgers Cooperative Research and Extension Fact Sheet. Data are also available at www.ntep.org and in the Rutgers Turfgrass Proceedings (See <http://turf.rutgers.edu/research/reports/index.html>).

Wear tolerance research was initiated on one-hundred-four entries comprising the 2010 Cooperative Turfgrass Breeders Test (CTBT) at North Brunswick, NJ. The machine described previously was used to apply 16 wear passes during 3 weeks in July 2011. Turf quality and brown patch were assessed in the absence of wear. Wear tolerance will again be assessed in 2012. Data will be available at www.ctbt-us.info.

Seeded in September 2010, wear was applied in fall 2011 to four Kentucky blue-

grass varieties and selections, four tall fescue varieties, and mixtures of the two species seeded at 90% tall fescue and 10% Kentucky bluegrass (by weight). Recovery from wear will be evaluated in Spring 2012. The performance of individual Kentucky bluegrass and tall fescue entries, as well as mixtures, during wear stress will continue to be evaluated in 2012.

The Rutgers Center for Turfgrass Science acquired a Brinkman Traffic Simulator and initiated studies comparing this machine, the Cady Traffic Simulator, and Rutgers Wear Simulator in 2011. These studies examined the effects of the three machines on tall fescue, Kentucky bluegrass, and perennial ryegrass. Additional studies comparing the three machines are slated for 2012.

In addition to research conducted at North Brunswick, the Rutgers Turfgrass Breeding Program evaluates varieties and experimental selections for wear tolerance as well as screens new turfgrass collections specifically for wear tolerance at Rutgers

Plant Science Research and Extension Farm, Adelphia, NJ. A second Rutgers Wear Simulator was constructed and is used to apply wear at Adelphia. In 2011, cool-season sports turf species including Kentucky bluegrass, perennial ryegrass, and tall fescue were evaluated. The wear tolerance of fine fescues was also examined. This research will continue in 2012. Data generated from these trials is available at the CTBT website as well as in the Rutgers Turfgrass Proceedings.

Research is sponsored by the National Turfgrass Evaluation Program, Rutgers Center for Turfgrass Science, and New Jersey Agricultural Experiment Station.

Rutgers research personnel include: Brad Park, Sports Turf Research & Education Coordinator; Dr. James Murphy, Extension Specialist in Turfgrass Management; Bill Dickson, Research Farm Supervisor; Joe Clark, Research Technician; Dr. Bruce Clarke, Director, Center for Turfgrass Science; and Dr. William A. Meyer, Associate Director, Center for Turfgrass Science. ■

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