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ONLINE EDUCATION



Session LE02

Pesticides on Turfgrass

Jay Gan, Ph.D., University of California, Riverside Bruce Kidd, Dow Agro Science

Maintenance of high quality sports turf, including golf courses, rely on the adequate use of pesticides in order to protect against pests, and restore the competitive balance in favor of the turf. This session will cover two facets of pesticides on turfgrass. One will be the fate of pesticides in the environment and strategies for minimizing pesticide runoff and offsite movement. The other will cover cultural and chemical practices for managing specific weeds in turfgrass with various stressful conditions. Examples will be drawn from golf courses and professional sports fields, all the way down to your children's beat-up soccer fields, with suggestions how you can help create and maintain a safer and better performing turfgrass.

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ntinuing Education I Session LE10

Evaluating and Amending Soil

Kent Kurtz, Ph.D., Calif. State Polytechnic Univ., Pomona Dirk Muntean, Soil and Plant Laboratory, Inc.

Maintenance of high quality sports turf, including golf There are many types of soils used for the construction and establishment of turfgrasses on sports fields. Poor soil physical properties and fertility imbalances reduce turf health, quality, and performance. Many potential problems can be solved by thorough examination and correction prior to turf planting. This session will provide the turf professional with a check list of potential problem areas that can be adjusted or corrected prior to turf installation by considering types of field materials or soils, pre-plant fertilizers, and organic amendments.

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Session LE22

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Managing Healthy Sports Fields

Tom Samples, Ph.D., University of Tennessee Paul Sachs, North County Organics

Many of today's new products and technologies can help sports turf managers maintain healthy, wear-resistant turfs. Timely mowing, fertilization, watering, aeration and pest control are fundamental. Learn that the vast majority of soil organisms are beneficial in a functioning ecosystem.

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Session LE13 Synthetic Infill vs. Natural Turf

A.J. Powell, Ph.D., University of Kentucky Darren Gill, FieldTurf

The examination of construction, maintenance, renovation, repair and other costs for a natural grass field and synthetic infills including as testing for safety and performance. The differences between polyethelene yarn type synthetic infills and nylon non-infilled fields that have higher sports shoe traction test results and the ball bounce and rebound that closely resemble the performance of a natural field will be explored.

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Developing an Aerification Program for Sports Fields

Trent Hale, Ph.D., Clemson University Dale Getz, The Toro Company

Learn how aerification of both warm-season and cool-season turfgrasses are an essential part of a good sports field maintenance program. The primary benefit of core aerification is to alleviate soil compaction. However, there are many other benefits of a routine aerification program, including water infiltration, compaction relief, air exchange, seedbed preparation etc.

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Diversified Sports Specialties	http://oners.hotims.com/9133-149	149	50
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Excell Minerals	http://oners.hotims.com/9133-131	131	37
First Products	http://oners.hotims.com/9133-165	165	35
Graco	http://oners.hotims.com/9133-113	113	9
Graden USA	http://oners.hotims.com/9133-141	141	49
GreenOne Industries	http://oners.hotims.com/9133-127	127	24
GreenOne Industries	http://oners.hotims.com/9133-133	133	38
GreensGroomer	http://oners.hotims.com/9133-116	116	15
Haydite/Game On	http://oners.hotims.com/9133-129	129	34
Hunter Industries	http://oners.hotims.com/9133-138	138	48
Jacobsen	http://oners.hotims.com/9133-147	147	56
KRAIN	http://oners.hotims.com/9133-111	111	3
Kromer	http://oners.hotims.com/9133-155	155	51
Lands Expo	http://oners.hotims.com/9133-170	170	48
Lands Expo	http://oners.hotims.com/9133-157 through 161	157-161	52
Laser Force	http://oners.hotims.com/9133-144	144	49
Laser Leveling	http://oners.hotims.com/9133-120	120	23
Lebanon Turf	http://oners.hotims.com/9133-123	123	27
MASA	http://oners.hotims.com/9133-136	136	48
Millcreek Mfg	http://oners.hotims.com/9133-137	137	48
Minuteman Parker	http://oners.hotims.com/9133-124	124	29
Minuteman Parker	http://oners.hotims.com/9133-162	162	52
Netex Canada Netting	http://oners.hotims.com/9133-150	150	50
NewStripe	http://oners.hotims.com/9133-125	125	30
Oil Dri/Pro's Choice	http://oners.hotims.com/9133-128	128	33
Partac Peat	http://oners.hotims.com/9133-140	140	49
Quantum Turf Technologies	http://oners.hotims.com/9133-152	152	50
Rainbird	http://oners.hotims.com/9133-115	115	13
Reel Rollers	http://oners.hotims.com/9133-153	153	50
Roots/Novozymes	http://oners.hotims.com/9133-121	121	25
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Stabilizer Solutions	http://oners.hotims.com/9133-164	164	51
STMA Membership Ad	http://oners.hotims.com/9133-180	180	46
Synthetic Turfgrass Council	http://oners.hotims.com/9133-166	166	39
Toro	http://oners.hotims.com/9133-110	110	2
Turf Diagnostics	http://oners.hotims.com/9133-139	139	49
Turf Specialties	http://oners.hotims.com/9133-154	154	51
Ty Crop Mfg	http://oners.hotims.com/9133-132	132	38
Varicore	http://oners.hotims.com/9133-146	146	55
Wessco	http://oners.hotims.com/9133-148	148	50
West Coast Turf	http://oners.hotims.com/9133-112	112	5
Western Pozzolan	http://oners.hotims.com/9133-130	130	35
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May 2006 - Expires November 20, 2006 - RS0606

Q&A

Lessons learned in 25 years with STMA, Part III

BY DR. DAVID MINNER Professor, Iowa State University

Questions? Send them to David Minner at Iowa State University, 106 Horticulture Hall, Ames, IA 50011 or email dminner@iastate.edu.

Or, send your question to Grady Miller at the University of Florida, PO Box 110670, Gainesville, FL 32611, or email gmiller@ mail.ifas.ufl.edu. esson #9: Whenever possible establish grass from seed or sprigs instead of sod. By no means does this statement indicate that sod should not be used in many athletic field situations. I've included this as one of my lessons because it took me many years to real-

ize that seeded or sprigged fields, especially sand-based fields, have fewer layering problems. The soil, fine sand, and thatch associated with sod can impede water movement and rooting into the field's rootzone below.

More importantly, the amount of roots produced below the sod are far fewer than those produced from the same area of a seeded field. If you want evidence, try this: On a sand-based field that has been sodded in the past 2 years, reach down and grab the sod, then pull straight up and notice that the sod easily lifts about a half inch. I have even noticed this on fields that are 4 years old and that have received several rounds of topdressing and aerification.

Now cut out a square foot of the field and shake the sand free from the sod to inspect the amount of rooting. Each square inch of sod may only have five or fewer roots anchoring the sod to the rootzone mix below. More roots are present where the aerification holes are and that is a testimony for aerification of sodded fields to reduce layering problems.



Compare this with a seeded field that has a continuous and massive supply of roots through out the upper 6 inches of the rootzone. Sodded fields have the advantage of being more stable after 30 to 90 days of grow-in; however seeded fields will have better stability and usually less divoting after the initial playing season. I was convinced of this by a sand-based football field in Minnesota that was seeded with Kentucky bluegrass by John Hopko of Professional Turf & Renovation. John seeded on April 29, 2000, and play began August 21

that same year. The field hosted 28 events and was home to the Eden Prairie 1A Football Champions.

By the second season the seeded field was more stable than most sodded fields of the same age. To compete with synthetic turf there is a need for low-cost, natural grass fields that have high performance. Six to eight inch sand pad fields can be seeded or sprigged, treated with Primo, and ready for play in 4 to 8 months depending on the location. The point is, when planning new field construction, don't assume that it must be sodded. Since seeded fields have fewer problems, plan early and try to arrange the construction schedule and opening day to accommodate seeding. Use sod as a back up if needed. Seeding cool-season grasses also provides the opportunity to specifically select grass varieties that may not be available as sod.

Just so I don't get "big rolled" by my sod friends it should be stated that there are countless examples of sodded fields, both native soil and sand-based, that continue to perform quite well under the supervision of a sports turf manager who understands the need for cultivation. For many years I would direct clients toward the sod option since it was easy and provided instant and mature grass. In situations were instant grass is needed, big roll 2-inch thick-cut sod has been a wonderful and saving recommendation to have in the arsenal. However, the lesson I learned and want to share here is that sand fields can in fact be seeded and by the second playing season they often perform better and are easier to manage than sodded fields.

Lesson #10: **Develop at least one "show case field"** since your reputation as a field manager will be built on the quality of your best field, with less attention given to the amount of resources or number of fields under your care. Be sure to allocate sufficient resources for one field so that you can show your ability to produce a high quality sports field. Sacrifice resources used on other fields that are not producing a noticeable improvement. Document additional resources needed to produce a quality field and use the information when requesting future resources to improve inadequate fields.

You should be able to define minimal inputs required for a desired level of field quality. Select a field with moderate to light traffic to "showcase." Additional resources may not produce a better field if excessive traffic is the major problem. Purchase a digital camera; it is the most important tool for showing the changes that occurred on the facility under your direction. Pictures of construction projects are also a valuable record of what is buried under the facility. Underground irrigation, drainage, and utilities may need to be accessed and pictures are often more important than drawings. A photographic record of the grounds crew and their activities can also develop a sense of pride in a job well done.

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