Question & Answer with Rutgers University

Q: I run a sports facility for a school in North Jersey. I was referred to you by a consultant with the hope that you could steer me in the direction of a variety of bluegrass that is leaf spot resistant. I have had leaf spot for most of the spring and would like to overseed with a bluegrass blend that might better serve to protect against the disease in the future. Please respond with any information that might help.

A: There are many newer varieties of Kentucky bluegrass that have good leaf spot resistance. Below is a link to the National Turfgrass Evaluation Program (NTEP) website showing leaf spot results for Maryland, Massachusetts, and New Jersey. Any entry raked above 6.0 (I suggest using the mean for all three sites) should suffice. http://www.ntep.org/data/kb05/kb05_09-10/kb0509t26.txt

Keep in mind that overseeding Kentucky bluegrass into existing turfgrass stands is not typically effective. The practice is even less effective in spring. Perennial ryegrass is a much more likely to establish when overseeded. The following link will allow you to download the Rutgers Fact Sheet titled, ***Integrated Control of Gray Leaf Spot on Perennial Ryegrass*** that lists grey leaf spot resistant perennial ryegrass varieties:_http://njaes.rutgers.edu/pubs/publication.asp?pid=FS1048. Gray leaf spot is a devastating disease that affects perennial ryegrass and the use of resistant varieties is an important consideration. - bsp

Q: I have a question I hope you can help with. We have a school district administrator who is unhappy with the bumpiness in the fields. He would like us to remedy this problem; however, total reconstruction is out of the picture. We generally do not roll our lawns, because of compaction issues. Although, in this case, I think it may be the only way to fix the problem, because I do not think topdressing alone will fix the problem.

So, do you recommend rolling in this situation? If so, how much weight can be applied? Would you recommend rolling in 2 directions? Would you recommend aerating after/ before? Any information you can give would be greatly appreciated. Thank you very much.

A: Attempting to solve bumpiness/surface inconsistencies in lieu of field reconstruction will be largely dependent upon the size and nature of the high and low spots. High and low spots resulting for poor grading at the time of construction are difficult to fix by way of rolling, core cultivation, topdressing, etc.

Smaller surface inconsistencies resulting from unfilled divots, penalty kick areas, etc. may be manageable with 'surface treatments' such as cultivation and topdressing or rolling. I think a reasonable goal is to attempt to ***smooth*** the surface - as opposed to address large 'bird baths' that will hinder surface drainage.

Annually, Monmouth Park Racetrack performs core cultivation (using deep tines that extract soil), core reincorporation via dragging, and sand topdressing at the end of the season after their turf track has been heavily divoted by horses. While they do replace/fill divots during the racing season, I am amazed how 'smooth' the course becomes after this process. The process of core cultivation and reincorporation by dragging does a very good job eliminating surface irregularities and subsequently smoothing the surface. This may be a good end-of-sports-season operation for your situation

In terms of rolling, I would be hesitant to put a roller on the field if you are working with a fine textured soil (i.e. susceptible to compaction), there is a lot of bare soil present, and conditions are wet. The more turf cover present (particularly Kentucky bluegrass), the more likely rolling will help to smooth the surface as opposed to over-compact the soil. Based on my experience with our research trials (we are working with a loam soil), I would suggest using no more than a 1.0-ton roller. Do not engage the vibratory function. Soil conditions should be relatively dry. I probably would start by rolling in only one direction. Again, if done properly, this will have the effect of smoothing the surface - not correcting poor surface grading issues. So, identifying the severity and nature of the problem and your objectives up-front are very important. - bsp

Q: Are you aware of any Kentucky bluegrass varieties that germinate in 7-10 days. Is this true or just a rumor? If it is true, how do these look and perform?

A: I often present a case study involving the renovation of Tiger Field at East Brunswick Vo-Tech, East Brunswick, NJ. The field was fumigated with Basamid in August 2005. A 5-variety blend of Kentucky bluegrass (Midnight, Jefferson, Limousine, Serene, and Goldrush) was seeded on September 1. Germination was observed approximately September 9. These were ideal conditions for rapid germination: Optimal soil temperatures, optimal time of year, automatic irrigation, native sandy loam soil. Likely, what we saw was one or two varieties exhibiting rapid germination - several probably took a little longer to germinate. The germination and establishment rate we saw in August 2005 would not occur in late September and beyond - particularly for Kentucky bluegrass; soil temperatures would be too cool at that point.

If you're interested in rapid germinating Kentucky bluegrasses, you may want to check out the NTEP website and look at the turfgrass establishment data taken for the 2005 NTEP Kentucky bluegrass test (Fall 2005 - maybe lumped into the 2006 data). There are some interesting differences. The NTEP trials, regardless of location, are almost always seeded in late summer/ early fall. - bsp

Q: The facts behind our situation are as follows: 1) Our high school behind the street we reside on is attempting to raise funds to install an artificial turf athletic field, replacing the existing natural grass field; 2) Since they would never pay for this with taxpayer dollars, there is a fundraising effort to purchase this field; 3) The people on our street are opposed to this because of the significant noise and traffic it might cause. We raised **environmental concerns** such as compounds in the crumb rubber cushioning - but not sure if these would be taken seriously; and 4) It seems the one issue might be "**maintenance costs**".

Would you have an opinion on whether costs to maintain an artificial turf athletic field are significantly less than a natural turf field? Any information or articles related to the above concerns would be greatly appreciated. Thank you for your time.

A: You are not alone. I have received this type of inquiry numerous times. As for maintenance costs, these infill synthetic fields can be maintained with minimal inputs; HOWEVER, under that approach the conditions on the field will deteriorate much faster and become increasingly compacted (hard), debris will eventually clutter the field, and unrepaired seam failures would become a safety hazard. So in reality, there are significant synthetic field maintenance costs.

Manufacturer's maintenance manuals for synthetic fields call for brushing and grooming to loosen compacted infill; cleaning equipment (needs to be purchased) and/or crews are needed to pick up debris; and staff/contractors are needed to repair worn out areas, failed seams, etc. Some municipalities and schools are concerned with bacterial infections and will pay to have the field periodically sanitized to limit their liability to potential serious infections (although some people believe this is unnecessary). These costs will certainly be in the thousands of dollars per year and can total into the tens of thousands per year when the fields are intensively used and managed, especially if this work is done via service contractors.

Ultimately, the most important "maintenance" cost for a community is the tear out and replacement costs for synthetic fields - these fields do not last forever. Albeit unusual, I know of a field that was replaced 6 years after the initial installation. Most companies will not stand behind a synthetic field (guarantee it) for more than 8 years.

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