

Walking a fine line

The question that I am addressing this month relates to lining athletic fields. Since I exchanged several e-mails to get more information, I decided this month to dissect the issue in parts as we did in our e-mails.

Grady Miller

A supervisor with the Grounds Department in a southern California school district asked about an alternative to using Roundup to mark off their athletic fields. My first comment, from an agronomic and sports perspective, was that Roundup or other similar products (including petroleum products) that kill the turf are the worst ways to establish boundaries for athletic fields. In climates with moderate to high rainfall the tendency is for the bare areas to begin to erode, causing "grooves" or recessed lines in the turf.

These are not safe for athletes and if bad enough can cause maintenance equipment damage. To combat this problem in their district, they back-fill the grooves once a year with sand to prevent them from becoming a hazard.

Since the district currently uses Roundup it was obvious that the schools are looking only toward long-term markings. In one response to me the district representative indicated that "the sad thing is that the soccer fields don't get used all that often, so excessive wear is not a problem. Yet the principals request that the lines be maintained year round." I think it is sometimes nice to have the field markings fade so that the fields can be shifted to move the wear areas. Moving soccer field sidelines just 2 feet significantly reduces sideline wear.

I suggested that the schools consider installing permanent markers. The one company that markets this is Permaline (<http://www.permalinesports.com/prod.html>). Their website even has a cost calculator so the long-term costs can be weighed versus painting. The District is exploring this option, but has a few concerns. They felt that their bermudagrass would cover it, so they would still need to spray herbicides to prevent overgrowth, or edge around both sides of the line, eventually damaging the material. I do not have experience with Permaline, but with the rapid creeping growth of bermudagrass, I imagine their concern is warranted.

I indicated to him that I have also seen schools that installed various available products (e.g., fire hoses, painted 2 x 4-inch wood, etc.). While these might be an inexpensive option, I do not recommend their use. They often produce lines that are too slick when they get wet and since they are not designed for these uses, it exposes schools to litigation.

My last option was a type of paint. Since cost and environmental concerns were high on the priority list, I recommend that the schools not consider aerosol types of paints (in cans). I think the best paint option is to buy what is known as an "airless sprayer" and use paint designed for athletic fields. There are a number of professional sprayer models for athletic fields. In addition,

there are four or five prominent paint manufacturers that sell paint specifically formulated for painting turf.

The schools in his district wanted no part of this option because it would shift the responsibility of line marking from the District Grounds Department to the individual schools. If the district provided the schools with paint machines, it would be up to the schools to find someone (PE teacher, custodian, student, etc.) to apply the paint. This would create a new and ongoing responsibility for them, and they like life just the way it is, with the district painting fields for special events, when a high quality line is called for. The district does not have the manpower to provide this service regularly.

I suggested they could get better longevity of the lines and have to paint less often if a small amount of a plant growth regulator called Primo is mixed with the paint (the label of Primo has directions for mixing). This is where I got a California-based education.

In California, his district is required to comply with a law known as "The Healthy Schools Act" that requires them to:

1. Post all pesticide/herbicide applications 24 hours prior to any application, and remain posted for 72 hours after.
2. Send a yearly written notice to all student families and staff listing all pesticides/herbicides that are to be used during the school year.
3. Provide written notice 72 hours in advance of any pesticide/herbicide application to any people who have requested such notice.

Because of these requirements, a heightened emotional sensitivity to pesticide/herbicide applications has occurred.

Fewer applications are the goal, attempting to allay any fears of pesticide/herbicide exposure. Currently they spray Roundup three to four times a year, which doesn't seem like a lot to me, but some parents question the need to "Fill our children's lungs with poison on such a regular basis." They only spray on Saturdays, or over winter, spring, or summer break, so

there are never children on campus when they spray. If they were to mix a PGR such as Primo with the paint, they would be required to post and send home pesticide application notices every month, twelve times a year instead of the three to four currently.

So, after my e-mails I decided I could not come up with an acceptable solution. I suggested permanent lines, paint, and paint with a PGR. All increase cost, increase application of pesticide, or increase labor. Do any of you have a solution? **ST**



QUESTIONS? Send them to Grady Miller at the University of Florida, PO Box 110670, Gainesville, FL 32611, or email gmliller@mail.ifas.ufl.edu. Or, send them to Dave Minner at Iowa State University, 106 Horticulture Hall, Ames, IA 50011, or email dminner@iastate.edu.