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Phosphorus fact & fiction

Guidelines for the responsible use of a valuable nutrient that's now in legislators' crosshairs

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Landscape Management



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- Industry News
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- Industry Jobs
- Your Business
- Best Practices
- Customers
- Employees
- Management
- Regulation
- Special Issues
- Business Planner: Features
- Business Planner: Resource Profiles
- Green Book Directory
- LM Outlook
- LM100
- Seed Guide
- Snow & Ice Guide
- Reference Shelf
- Athletic Turf
- Design/Build
- Disease Control
- Hardscapes
- Irrigation
- Mowing
- Pest Control
- Plant Nutrition
- Snow & Ice
- Technology
- Tools of the Trade
- Weed Control
- Browse All Subjects
- Surveys
- Resources
- Advertiser Info
- Classifieds / Products & Services
- Classifieds / Recruitment
- Place a Classified Ad
- For Readers
- Mission Statement
- Editorial Team
- Advisory Panel
- Subscriber Services
- For Advertisers
- Media Guide

« back

Pages | 1 | 2 more »

The blame game Effective management of phosphorus in lawns is not only good for the grass but essential for lawn care professionals. Whether it's true or not, phosphorus in runoff water from turf has been fingered as one of the causes of the degradation of the quality of surface waters in urban areas.

Recent legislation in Minnesota now bans phosphorus use on lawns with high soil phosphorus in the seven county area surrounding metropolitan St. Paul and Minneapolis. An exception is made for starter fertilizer. Numerous small communities scattered around the Midwest have passed similar ordinances. In Wisconsin, the intent is to require that any five or more contiguous acres of turf be fertilized according to soil tests. No phosphorus applications will be allowed where soil tests are high or excessive.



Figure 4

The concern is how quickly soil phosphorus will be depleted to the point where supplies are insufficient for maintenance of high-quality turf. The graphs in Figure 4 address this concern.

Per those graphs and for the conditions under which they were developed, soil P declined 4.5 ppm per year when clippings were removed and no fertilizer phosphorus was applied. The comparable figure when clippings weren't removed was a decrease of 1.8 ppm P per year. We find that many of our lawns have soils tests in the range of 60 ppm while we consider 20 ppm optimum. Under these circumstances, the soil P can be allowed to decline about 40 ppm without experiencing a reduction in turf quality. Dividing this 40 ppm by a decrease of 4.5 ppm per year when clippings are removed suggests we can go about eight years without applying phosphorus. With clippings returned, the figure is 40/1.8, or 22 years. I wouldn't wait that long in either case. Rather, I'd test the soil every three to four years and track the rate of decrease in soil test phosphorus for my particular situation.

Break with tradition The tradition of always applying fertilizers that contain phosphorus is a deeply ingrained practice. This leaves many people concerned that not applying phosphorus every year will cause turf quality to decline.

Where soil phosphorus levels are high, there's no increase in clipping phosphorus when fertilizer phosphorus is applied. In this case, applying phosphorus is a waste and not an environmentally sound practice.

The growing trend in regulation of phosphorus use on turf is a clear signal that the turf management industry needs to be prepared to react in a safe and positive manner.

« back

Pages | 1 | 2 more »



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OPINION SURVEY

Rolling Stone just came out with a list of the greatest rock songs of all time. So with that in mind, we thought we'd ask which guitar hero you like best.

Who is the greatest guitar player of all time?

- B.B. King
- Eric Clapton
- Jimi Hendrix
- Jimmy Page
- Les Paul
- Slash
- Eddie Van Halen

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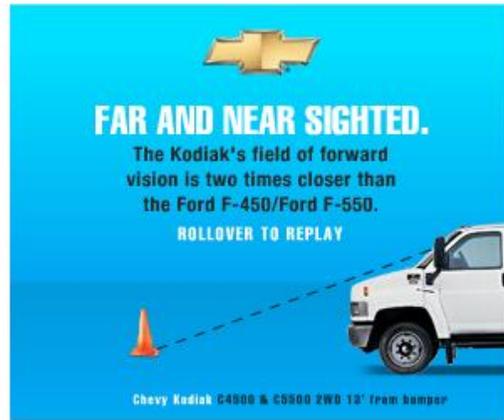
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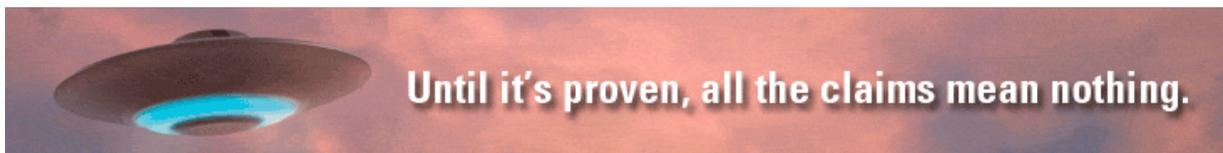
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