much at one time. What is “excessive” depends on the soil type and condition, the turfgrass species and the climate. Any nitrogen that has been converted to nitrate but has not been absorbed by the plants is prone to leaching. "Spoon feeding" the turf with low rates of nitrogen on a more frequent basis (0.05 to 0.20 lbs. N/1000 sq. ft. per week) helps keep nitrogen levels more uniform throughout the season and improves their efficiency of use.

The placement of any nitrogen fertilizer on impervious surfaces increases the chance of nitrogen entering surface or subsurface water resources. Therefore, avoid applying granules or spray directly onto sidewalks, roads and driveways. You may need to use a drop spreader on turf areas next to these surfaces or remove any granules using a broom or a blower. Also, avoid applying fertilizer directly into any surface water such as streams, lakes or temporarily ponded water.

Foliar application of soluble nitrogen fertilizers may reduce movement of nitrogen in runoff and leachate compared to granular application. However, volatilization losses will be higher when using a sprayer or fertigation system. Soluble nitrogen granules, like uncoated urea, which remain on top of the turf canopy after application, have a greater risk of moving offsite in runoff compared to granules that have moved into the turf canopy by gravity or water.

Choosing an appropriate granule size for the canopy density will help granules move into the canopy. For example, on golf greens, smaller granules should be used so they can more easily move down into the highly dense canopy. Large or small granules can be used on lawn or athletic fields because the turf on those areas has a canopy that is less dense and more open than a golf green.

Although turfgrasses naturally do a great job of minimizing offsite movement of nitrate and other forms of nitrogen, there are certain management practices that can be used to even further reduce the chance for movement. The suggested practices are inexpensive to implement and should not decrease turf quality. Actually, some may even improve turf quality.

Educating yourself, fellow turf managers and your customers on this issue should give everyone a little more peace of mind when it comes to nitrate movement from turfgrass.

Choose an appropriate granule size for turf density to help granules move into the canopy.

—Douglas T. Linde, Ph.D., is an Assistant Professor of Agronomy and heads the Turf Management Program at Delaware Valley College, Doylestown, PA.

Events

JANUARY

20 Landscape Contractors, Turfgrass Managers & Grounds Maintenance Conference with Trade Show Jamil Shrine Temple, Columbia, SC. Call SC Landscape & Turfgrass Association 803/772-9380

25-27: Central Environmental Nursery Trade Show (CENTS) Greater Columbus Convention Center, OH. Call 800/825-5062, fax 888/665-2329

26-31 National Arborist Association Winter Management Conference Weston Caesar Park, Cancun, Mexico. Contact Carol Crossland 800/733-2622, fax 603/672-2613, www.natarb.com


FEBRUARY

1-26 University of Guelph, Annual Turf Managers’ Course Holiday Inn, Guelph, Ontario. Call 519/767-5000, fax 519/767-1114.

2 OSU Extension Annual School Tom’s Country Place, Avon, OH. Contact Charles Behnke 440/322-0127

3-5 Turfgrass Producers International Midwinter Conference & Expo The Hyatt Regency Tampa, FL. Call 800/405-8873 or 847/705-9898

4-6 PLCAA Management Conference Embassy Suites, Orlando, FL. Contact Heath Moore 800/458-3466, fax 770/578-6071, www.plcaa.org


10 JOB FAIR (Stockbridge School of Agriculture & the Univ. of Mass.) Campus Center Auditorium, Amherst, MA. Call 413/545-2222.

12-14 GCSAA International Conference & Show Orange County Convention Center, Orlando, FFL. Call 800/472-7878, www.gcssaa.org