

VEGETATION MANAGEMENT

By Roger Funk, Ph.D., Davey Tree Expert Co., Kent, Ohio

Can slag be used as a liming material?

There are several types of materials classified as slags. Basic slag is a product of the basic open-hearth method of making steel from pig iron. It has a relative neutralizing value of 50-70 compared to a value of 100 for calcium carbonate (ground agricultural limestone), although it is generally applied for its phosphorus content rather than for its value as a liming material.

How can you tell ants from termites? We were told by a pest control firm that we have termites.

Termites have two pairs of wings of equal length, no eyes and a thick waist, whereas ants have three distinct body sections. You can obtain a USDA publication from your local cooperative extension agent entitled "Subterranean Termites Their Prevention and Control in Buildings" (Bulletin No. 64). You might also obtain a copy of "Scientific Guide to Pest Control Operations" from Harvest Business Publications, publishers of Weeds Trees & Turf.

Do those Japanese beetle traps really work?

They trap beetles, but I doubt if they significantly reduce the injury to ornamentals or turf unless the home owners in an infested area cooperate in a widespread effort. The traps should NOT be placed near susceptible ornamentals.

What grass would you recommend that could tolerate road salts along highways?

Most of the grasses that are rated as having high salt tolerance are native to the western alkaline soils and may not survive the cold winter temperatures of Pennsylvania.

Tall fescue (*Festuca arundinacea* Schreb) tolerates the low maintenance conditions of roadside planting and has good tolerance to road salts. Alkalai grass (*Puccinellia distans*) has reportedly been found growing in salt-contaminated soils along highways near Chicago and may be hardy in your area.

I want to get into the tree fertilization service using a liquid fertilizer with low salt content. I also want to buy an organic or a slow-release liquid fertilizer to use on turf. My company has a high pressure spray rig. Could you find a reputable company for me?

Boots Hercules Agrochemicals Company, headquartered in Wilmington, Delaware, produces a powdered ureaformaldehyde (Powder Blue) which releases nitrogen over a two-year period. Since ureaform is not soluble, the spray tank must have sufficient agitation to maintain a suspension during operation.

Powdered ureaform can be used for both trees and turf, but most lawn service companies prefer a shorter release period. Ashland Chemical Com-

pany in Columbus, Ohio, produces a liquid source of nitrogen (Formolene 25) which has a lower burn potential than urea and, reportedly, a longer residual. Tests are currently underway to determine the release characteristics.

We have been using a triazine herbicide in our nursery, and I think we are getting some injury. Would you describe the foliar symptoms?

Discoloration of leaves may be white, cream or yellow and is usually marginal with interveinal "fingers" reaching toward the midrib.

What is the difference between "slowly-soluble" and "slow-release" fertilizers?

The terms, slowly-soluble and slow-release, are used to distinguish between the mechanisms of release in the soil of nitrogen in a form available for plant absorption. Slowly-soluble materials require some microbiological and/or soil chemical action before they are available for plant utilization. Examples of slowly-soluble nitrogen fertilizers are ureaformaldehyde and isobutylidene diurea (IBDU). The slow release materials are actually readily soluble or readily available materials that have been coated to restrict contact with soil moisture. Sulfur-coated urea is the most common slow-release source of nitrogen.

What are the apparent effects of planting flowers which prefer an alkaline soil in close proximity to shrubs and trees which prefer an acid soil?

The availability of nutrients in the soil is affected by soil reaction.

Some nutrients become more soluble and, therefore, more available for plant absorption when the soil is acid. The so-called "acid-loving" plants require relatively large amounts of these nutrients and will typically display deficiency symptoms when grown in alkaline soils. For example, iron becomes less soluble or "fixed" in alkaline soils, and plants such as rhododendron that requires relatively large amounts of iron become chlorotic from an iron deficiency.

Conversely, certain plants require relatively large amounts of nutrients that are more soluble in alkaline soils. These plants will not perform well under acid conditions.

Reader response

In response to the February 1980 Vegetation Management column, I received a call from the owner of a golf course in Tennessee who has been able to control bermudagrass in bentgrass greens with Tupersan (Siduron). Similar experiences have been reported in the DuPont publication "Professional Turf Manual." Although I cannot recommend a pesticide for an unlabeled usage, I suggest you contact a DuPont representative or golf course superintendent who has attempted this practice if you would like additional information. Thanks for the tip.