To lime or not to lime …

To determine whether or not to apply lime to a sports field a soil test must be performed. Soil testing kits may be purchased from a Rutgers Cooperative Extension county office. Each kit includes an information sheet, a questionnaire, and a mailing bag or envelope. The information sheet provided with the soil testing kit describes proper sampling procedures.

In a standard soil test, the plant nutrients boron, calcium, copper, magnesium, manganese, phosphorus, potassium, and zinc are quantified to determine their availability to a crop, in this case turfgrass. Fertilizer and lime requirements recommended by the Rutgers Soil Testing Laboratory are based on soil nutrient levels, pH, and in some cases, crop management and site conditions.

Conducting a soil test to determine soil pH and a lime requirement (if any) is essential in order to decide whether a lime application is needed.

Optimally, lime should be applied as part of the turfgrass establishment process, prior to finish grading and turfgrass seeding. Lime should be tilled to a 6-inch depth based on soil test recommendations. In the case of established turfgrass, lime should not be applied in excess of 100 pounds per 1000 square feet.

Very simply, if the results of soil testing determine that a lime application is needed - apply a liming material. If no lime is required – don’t apply lime.

Choosing a liming material

When a lime material is applied to soil, it has the effect of neutralizing soil acidity. Calcitic limestone is often referred to as “regular” limestone and is nearly pure calcite or calcium carbonate (CaCO₃). Dolomitic limestone is a mixture of calcium carbonate and magnesium carbonate and can be used when pH is determined to be low and deficient levels of magnesium exist.

Ground agricultural limestone can be used to correct soil pH in turfgrass areas. Depending on the fineness of the material, it may be difficult to spread ground agricultural limestone using a drop spreader because finely ground particles may bridge over the application holes in the spreader. Spinner-type spreaders can be used to apply ground agricultural limestone, however bridging problems...