Dr. Richard J. Hull is a professor of Plant Science and chairman of the Plant Sciences Department at the University of Rhode Island. He teaches applied plant physiology and plant nutrition.

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FIELD TIPS

While calcium nutrition is rarely a concern for the turfgrass manager, there are circumstances where Ca additions may be beneficial. The following points might be worth considering.

1. If the substrate on which turf is grown contains no Ca, it must be added to insure a quality turf. Very sandy soils, reclaimed or synthesized soils, sand-based greens are situations where Ca additions might be considered.

2. Under field conditions, acute Ca deficiency is unlikely. You will not observe growing points collapsing or distorted leaves emerging. More likely you will notice sluggish responses to fertilizer, excessive disease incidence, a tendency for greater stress injury (drought, heat) and a generally weak stand that does not recover well from damage.

3. Calcium is most likely to be deficient in well fertilized grass because its need for Ca will be greater. Stimulated growth and clipping removal will aggravate a chronic Ca insufficiency.

4. Calcium can be added as liming materials (calcium carbonate) and on sandy sites, application should be repeated when shown by soil analysis to be needed, perhaps every two to three years because Ca will leach if there is no cation exchange capacity to retain it in the soil.

5. Foliar spray applications usually are unnecessary and might even cause leaf burn. A Ca source such as lime or gypsum ($CaSO_4$) added to fertilizer or incorporated into topdressing should satisfy grass needs. Calcium nitrate or sulfate are good soluble sources of Ca.

6. Calcium is not likely to become toxic to turfgrasses. Some plants can tolerate Ca salts precipitating around their roots, however, there is much genetic variability in this. As monocots, turfgrasses generally have a somewhat lower Ca requirement than most dicot plants. Excess Ca is more likely to displace needed magnesium and other divalent metal nutrients as well as potassium and that may