NUTRIENT LEVELS

**Question:** Some fertilizer sales people, using detailed soil tests, have stated that there is a hazard of copper and zinc toxicity in my greens caused by long-term use of sludge-based fertilizers. Is that so? (Utah)

**Answer:** Since the micronutrient cations, such as copper, are most soluble and therefore available under strongly acidic conditions, it should be possible to limit their toxicity by raising the soil pH via liming. Unless noticeable signs of copper or zinc toxicity appear, however, it would be inappropriate to suggest taking action other than maintaining a neutral pH range to avoid future problems.

PLAY AN ESSENTIAL ROLE

**Question:** Each winter I have the opportunity to play many courses in the deserts of Arizona and California. During these travels, I cannot help but notice the dramatic differences in fairway quality from one golf course to the next. Is there some reason, other than economics, for these differences? (North Dakota)

**Answer:** Generally speaking, there are five keys to successful fairway overseeding that each golf course should follow. Though it would be nice to report that economics does not play a significant role in these matters, as you can see, all of these points have a financial basis. Successful overseeding includes: (1) selecting the proper seeding date, (2) planting seed at the optimum rate, (3) providing uniform irrigation coverage, (4) using lightweight mowing equipment, and (5) controlling cart traffic. When these points are not adequately considered, poorer fairway quality will occur.

IN DENSE TURF GROWTH

**Question:** We have experienced an abnormally heavy amount of rainfall this winter and are now fighting severe algae outbreaks on our greens. HELP! (Florida)

**Answer:** As with any pest problem, maintaining a dense turf cover is the best defense. Once an algal scum has formed, a combination of chemical and cultural control measures can assist in your efforts to bring it under control. At the present time, there are few chemical treatments available for algae control. As far as cultural treatments are concerned, regular slicing, spiking, or solid “quadratine” aerification, along with occasional topdressing, can help control the problem. As a last resort, core aerification may be necessary.