

VEGETATION MANAGEMENT

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

Q: I have a turf area in an industrial lawn that has a cation exchange capacity of 7.5. What would you recommend as a top dressing to build up the soil, and how often should this material be applied?

A: As you probably are aware, many people consider the cation exchange capacity (CEC) of a soil the best single index of potential soil fertility. A "good" CEC would be in the range of 14 to 20 milliequivalents per 100 grams of soil. The CEC of your soil (7.5) indicates a fine sandy loam that would have problems retaining both nutrients and water.

Organic matter improves the CEC of sandy soil more rapidly than mineral soil (clay or silt) additives, although a good top soil would be satisfactory. However, the use of a top dressing that is distinctly different from the underlying soil may result in the development of an interface, a layering affect that impedes penetration of air and water. Top dressing in conjunction with a coring process will minimize the layering by providing some integration of the soil and top dressing. The top dressing process may be repeated over a period of several years until the desired CEC has been achieved.

Q: What is the best application for getting rid of broadleaf weeds when one doesn't want to affect or damage (kill) newly planted trees. We've lost trees with spray applications.

A: We have had good success with paraquat or Roundup although you may get some injury on young, green-barked trees.

Q: I have a maple tree with roots that are on the surface and are injured when I mow. Can I cut off these roots safely?

A: Unless there are a number of large roots, you should be able to prune them without causing injury to the tree. However, the roots are differentiated near the surface because that is where conditions are favorable for root growth and development. Maples are notorious for surface rooting, but compacted soils, waterlogging and other factors which inhibit air penetration contribute to surface root development. Unless these conditions are corrected, new roots may reappear on the soil surface.

Q: I always used a wetting agent when I applied paraquat, but someone told me not to use one with Roundup. I have been using it anyhow. Who is right?

A: Whoever told you not to use a spreader sticker with Roundup is right. Always follow the recommended application procedures on the chemical

label. The Roundup label states, "DO NOT ADD ADDITIONAL SURFACTANT."

Q: What is the latest status on tree wound dressings? Should we still be using them?

A: Although there has been some fairly recent research indicating that tree wound dressings do not prevent the entry of decay organisms, other evidence has shown that certain beetles are attracted to fresh wounds on trees if they are not painted. One Minnesota tree company was sued for not painting cuts on oaks which subsequently died from oak wilt, a disease carried by sap feeding beetles. Of course, the best policy would be to avoid pruning whenever possible during periods of beetle flight.

New research is being performed and projected by the Davey Company and by others in the field of arboriculture. Until more conclusive evidence is available which suggests that pruning cuts should not be treated, our recommendation will remain to paint all pruning cuts over one inch in diameter. **WTT**



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