

# VEGETATION MANAGEMENT

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

**Q:** *Could birds be killing the main leader of a spruce tree by perching on it? I was told that this could be the reason that some of my trees have multiple leaders. (New York)*

**A:** Large birds such as redwing blackbirds have reportedly killed or damaged the main leader of certain pines and spruces, resulting in competitive lateral growth. If, as the laterals turn upward, they, too, are damaged, the top of the tree appears almost as a witches' broom. Injury occurs to tender candle growth in the spring, particularly when trees are planted next to open fields.

**Q:** *I have noticed that peat-vermiculite added to soil as an amendment will absorb water within a few days but that milled bark stays relatively dry for weeks. Since this can affect the survival rate of new plantings, how can we wet the bark more rapidly? (California)*

**A:** Milled pine bark attained only 58 to 78 percent moisture saturation within 45 days, according to a report from the California Cooperative Extension Service. Preparing the soil mix well in advance of planting should solve the problem. Wetting agents may also be helpful.

**Q:** *During this past spring high winds broke large limbs and uprooted trees in our area. The roots of the trees were very shallow. What can we do to increase rooting depth and reduce storm damage? (Illinois)*

**A:** Contrary to popular opinion, the bulk of tree roots occur in the top three feet of soil with many of the feeder roots near the surface. Roots grow where soil conditions support growth. They cannot grow where oxygen is limited or where the soil is compacted and hard to penetrate. The availability of oxygen decreases and the resistance to penetration usually increases with soil depth. In addition, the highest concentration of available nutrients usually occurs near the soil surface. Therefore, this is where most of the roots are located.

Deeper rooting can be encouraged by aerating the soil within the root area. Vertical holes drilled to a depth of two feet and spaced 18"-24" apart is the most common practice. Pressure injection of liquid soluble or suspension fertilizers will also increase the porosity of soils while providing nutrients below the soil surface.

Pruning to reduce wind resistance and cabling and bracing to support weak crotches are standard practices for minimizing the potential for storm damage.

**Q:** *What is the best method of seeding a small slope with turfgrass to prevent erosion? (Ohio)*

**A:** After preparing the soil, seed and gently rake for good seed-soil contact. Protect the newly seeded area with a mulch such as straw, burlap, cheesecloth or Soil-Gard, a biodegradable latex material. It is impor-

tant to keep the seeds moist until proper establishment. Ryegrass is sometimes added to the seed mix to provide more rapid germination and soil stabilization.

**Q:** *We have a gravel footpath on campus which is being eliminated. If we remove the gravel, can we overseed the area with grass? (Pennsylvania)*

**A:** If a soil sterilant was used, test the soil for residual either by chemical analysis or bioassay with ryegrass. Other problems that may have to be corrected before establishing turfgrass are alkaline soil reaction induced by limestone gravel and compaction from foot traffic.

**Q:** *Have you heard of using a type of bandaid to treat wounds caused by mowers? (Ohio)*

**A:** I am not aware of a commercially available product, but perhaps you are referring to a home remedy.

Wrap the damaged bark in place with moist cloth and cover with plastic. Keep the cloth moist for several weeks. If the surface is green when scratched, regeneration has occurred and the wrapping can be removed.

**Q:** *Exactly what is a surfactant and when should we use one in our spray mix for trees? (New York)*

**A:** Surfactant is an abbreviation for surface active ingredient. It refers to materials that are active on the surface of water molecules, wettable powders, emulsions or other components of a spray mixture. The surfactants for which arborists have the most use are wetting agents (spreaders), stickers, compatibility agents, antitranspirants and foam suppressants. Since the term surfactant includes a wide variety of chemicals and applications, you must know the purpose of the recommendation to "add a surfactant" in order to determine when and what type of surfactant to use.

**Q:** *I have recently become superintendent of a golf course which has had very little fertilization and aeration in the last ten years. The fairways are about 80% tall fescue and 10% chickweed which is spreading. We don't have watered fairways. What's the best way to establish bluegrass? (Illinois)*

**A:** If you prefer only bluegrass on the fairway, it is best to get rid of existing vegetation by using Roundup and then re-establishing the bluegrass.

Or, if you don't mind tall fescue with bluegrass, first try to control the chickweed by using Trimec or Dicamba (Banvel) herbicide. Then verticut, rake and seed the fairway with bluegrass seed. Bluegrass seeds are very slow to germinate and establish.

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**Send your questions or comments to: Vegetation Management c/o WEEDS TREES & TURF, 757 Third Avenue, New York, NY 10017. Leave at least two months for Roger Funk's response in this column.**