

VEGETATION MANAGEMENT

By Balakrishna Rao, Ph.D., and Thomas P. Mog, Ph.D., Davey Tree Expert Co.

Q. What kind of herbicide can be used to control quackgrass in landscaping areas? We are interested in treating the area around a number of different conifers and shade trees. (Massachusetts)

A. Quackgrass (Agropyron repens) is a creeping, grass-type perennial weed. It spreads vegetatively by the production of stolons and rhizomes, and thus presents a serious problem once it is well established. Hand-digging removal is not satisfactory. For best results, the herbicides such as glyphosate (Roundup) or pronamide (Kerb) should be applied when the

quackgrass is actively growing in the fall.

Glyphosate is a systemic, nonselective herbicide. It will be absorbed by the leaves and translocated into the rhizomes. As a result, the shoots and the roots will be killed. Avoid spray drift onto desirable plants because of potential injury. Because of the nonselectivity of Roundup in areas where directed sprays are not feasible, fall application of pronamide is recommended; it will not eliminate quackgrass but will suppress its growth. Pronamide is a selective herbicide; therefore, it can be safely applied around many established ornamental plants such as Douglas fir, pines, junipers, yews, forsythia, holly and many shade trees. It should not be applied to seedlings or to young transplants. Read and follow label specifications.

Q. In early spring a number of lawns have shown areas of bleached grass blades which generally disappear after mowing. What causes this, and is there something we can do to minimize the problem?

A. From your statement, it appears that the problem of bleached grass blades is related to winter injury, par-

ticularly to winter desiccation.

Cool-season turfgrass survives the winter in a dormant or semidormant state. As moisture and temperature become favorable in the spring, new roots and shoots are initiated. Heat and drought stress during midsummer followed by adverse winter conditions can injure root systems of cool-season turf. Factors such as low temperature, winter desiccation, heaving, and deicing salt can cause winter turf injury.

Winter desiccation occurs when insufficient moisture is available to turfgrass because of dry or frozen soils. After the snow cover thaws, turfgrass may appear green, then the leaves normally bleach to a characteristic shade of white or brown. This is called "windburn," due to atmospheric desiccation. Superficial foliar windburn is not critical as long as the water deficit does not injure the meristematic tissues of the crown. Severely affected crowns may not recover except from the nodes of rhizomes and stolons.

Damage from winter desiccation usually occurs on exposed sites that are subject to drying winds or areas that do not accumulate protective snow cover. Fencing or planting shrubbery to direct and accumulate snow, as well as judicious fall watering, may help prevent excessive drying. Some managers use brush from

pruning, mulches or topdressing to prevent winter desiccation. Antidesiccants can be used to ensheath grass blades and keep them from drying.

Applications of quick-release fertilizers, such as urea, should not be applied to dormant turf which is prone to winter desiccation. Applications should be timed early enough in the fall to allow the fertilizer to be washed into the soil and be utilized by the plant, minimizing the potential for foliar burn or physiological drought.

Q. I have planted many trees very successfully without pruning to compensate for root loss. Why do nurserymen recommend pruning the branches when they transplant a tree? (New Jersey)

A. Transplanted trees are pruned to keep a balance between the top of the tree and its roots and to provide a sturdy framework of branches. A healthy tree has just enough shoots to manufacture food and just enough roots to take in water and nutrients; the shoots

and roots are in equilibrium.

When a tree is dug for transplanting, many roots are lost. Some nursery stock has been root-pruned several times, and the roots are pruned again during digging for transplanting. Any reduction of the root area could result in death if the remaining roots are not able to supply the crown with enough water. Thus, it is a common practice to slightly prune back the top of the tree to re-establish a healthy root-to-shoot relationship.

Pruning may also result in desirable side branching. The planting stock may be leggy or spindly because of crowded conditions where it was grown. Selective pruning of the branches aids in the development of a shorter-stemmed, more stocky and structurally

The fact that you have successfully transplanted trees without pruning may mean that you have provided other special care, such as a regular watering program, which reduced the water stress.

Q: What is the best control for bagworms on junipers? (Missouri)

A: The young larvae are easiest to kill in early to mid-June with carbaryl (Sevin), diazinon or malathion.

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Questions should be mailed to Vegetation Management, Weeds Trees & Turf, 7500 Old Oak Blvd., Middleburg Heights, Ohio 44130. Please allow 2-3 months for an answer to appear in the magazine.