

VEGETATION MANAGEMENT

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

Q: How effective are wood ashes as fertilizer or as a replacement for lime? (Ohio)

A: The nutrient value of dry, unleached wood ashes is about two percent potash and negligible nitrogen.

Wood ashes may be 20% to 50% lime with the ash of hardwoods such as oak, elm and beech containing one-third more calcium than the ash of softwood. With this composition, it would require 4,000 to 10,000 pounds of wood ashes to be equivalent to one ton of ground agricultural limestone. Due to the light weight of dry ashes, it would take considerable quantities to substitute for lime.

Q: Is there any information available that will tell me how long it may take one man to mow one acre of grass using a 48" Yazoo mower? (Florida)

A: Assuming effective width of cut is 42" and typical mowing speed 3.5 miles per hour, published estimates of time requirements to mow one acre with a 48-inch power unit range from 29 to 42 minutes. Of course, many factors will influence this estimate, including type and height of turf, obstacles and slope, and the operator's skill. You may find useful the "Guide to Grounds Maintenance Estimating," available from the Professional Grounds Management Society, located at 7 Church Lane, Pikesville, Maryland 21208.

Q: Is it possible that the new sulfur-coated urea fertilizers, because they become chopped up during mowing, cause surges in growth and subsequent slow-down, thus thickening and thinning of turf? I notice a lot of bare spots on greens using this type fertilizer and wonder at the reason.

A: The use of sulfur-coated urea on close-cut turf such as golf greens should be limited because of losses due to mower pickup and breakage of the sulfur coating which will release urea in the first week following application. Even with the use of superfine sulfur-coated urea and mowing without a catcher, at least 10 percent of the application will have its coating broken resulting in immediate release of the urea.

Several researchers have observed an irregular or spotted response of turf following sulfur-coated urea application which is attributed to the small number of particles applied per unit area and movement of the particles with rainfall or irrigation water.

Q: What is the best grass or mixture to use in clay soil with medium care? (Georgia)

A: Your location (Athens) is on Piedmont soil and in the warm, humid climate of turfgrass adaptation zones. A mixture of Tall fescue (90%-95%) and Kentucky bluegrass (5%-10%) can be used in your area. For names of specific cultivars most adaptable to your region, contact your local extension service.

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.

Q: Last spring, the ground beneath several elm trees was littered with small twigs. Could this be caused by squirrels? Although squirrels were seen in the trees, they were never seen feeding on the branches. (Illinois)

A: If you get up a little earlier in the morning this spring, you will probably find that the squirrels are cutting off the twigs and eating the elm seeds.

Q: What will control bindweed between nursery rows? (Pennsylvania)

A: Glyphosate (Roundup) has reportedly given better control than Amitrol-T.

Q: If available, could you please publish information on the types of root systems of trees common to our area. I have not been able to find this information anywhere. (Indiana)

A: The following list was obtained from West Virginia University. It is important to note that the list is for initial roots only. Many factors including genetics, soil conditions, stage of maturity and whether or not the tree has been transplanted can influence root development.

INITIAL ROOT SYSTEMS

Long tap roots without prominent laterals.

Most pines, including:

longleaf
sugar pine
red pine
jack pine
pitch pine
shortleaf

Oaks, such as:

red
white
chestnut
black
Hickories
Eastern red cedar
American chestnut

Prominent laterals, short taproots

balsam fir
Norway spruce
red spruce
Sitka spruce
Eastern hemlock
Western hemlock
Southern cypress
sugar maple
yellow birch
American beech
Southern white cedar (after first year)

Long tap roots and prominent laterals

black walnut
yellow poplar
black locust

Plastic root systems (easily influenced by soil environment)

red maple
boxelder
white pine (based on recent information)
Southern white cedar (first year only, then lateral system)