

PROBLEM SOLVERS

by Balakrishna Rao, Ph.D

Base watering on soil moisture

Problem: *Should a lawn sprinkler system be timed for 15 minutes each day or 1/2-hour every other day or night? (Massachusetts)*

Solution: Deep and infrequent watering is recommended for most home lawns to encourage deep rooting of turfgrass plants.

Deep rooting aids turfgrass establishment and drought tolerance. Ideally, watering should be based on soil moisture. As a "rule of thumb" watering once a week is sufficient; however, depending on the soil type and the time of the year, this frequency can change.

In answer to your specific question, it is better to water 1/2-hour every other day than to water 15 minutes every day. Shorter intervals tend to promote shallow rooting which may promote turfgrass susceptibility to drought. The best time to water would be about sunrise so that water on the leaf surfaces will dry before nighttime and discourage disease development.

Scale control for pin oaks

Problem: *How do I control the spread of scale on pin oaks? Dormant oil does not work. (Missouri)*

Solution: Usually dormant oil alone will not give 100 percent control of scale insects. The general principle in scale insect control requires the application of dormant oil when the plant is dormant plus one or more applications of insecticides for controlling crawler stages in summer.

Among many scale insects, obscure scale is one of the most common ones on oaks. Most likely this is the insect you are trying to control. For best results get the scale insect identified and then follow proper management practices.

Control of pine needle scale

Problem: *What can we use to control scales on pine needles? When is the best time? (New York)*

Solution: I believe you are referring to pine needle scale; however, it is important to properly identify the pest before applying pesticide to control it. Therefore, the following should help you identify the pine needle scale and its control. The pine needle scale attacks pine, spruce and occasionally hemlock, fir and taxus. Most severely affected are Austrian, Scotch, white, red and mugho pines and white and blue spruces.

This sedentary insect sucks large amounts of plant juices, turning the needles yellow and causing them to drop prematurely. If left uncontrolled, infestations can stunt and gradually kill branches and entire trees. Pine needles may appear nearly white

when heavily infested with pine needle scale, an elongated insect one-tenth inch long, white with a yellow spot at one end.

During the fall, purple-red eggs are deposited beneath the white female covering; these eggs overwinter and hatch in late May (when lilac is in full bloom) and the reddish crawlers emerge from under the mother covering. Crawlers migrate to the new growth and, once established, do not move again.

In about seven weeks, this first brood matures and produces a second generation in late July. This brood matures in October and lays eggs which overwinter. Apply 60 or 70-sec. oil or oil plus ethion in April to kill eggs. This alone may not adequately control the problem. Therefore, apply malathion or dimethoate in late May to control crawler stage.

No leaching problem with Oftanol

Problem: *Is Oftanol subject to leaching when used on sandy soils? (Ohio)*

Solution: The manufacturer's (Mobay Chemical Company) representative indicated that, based on their research findings, Oftanol is not subject to leaching when used on sandy soils. Most of the Oftanol applied will remain in the thatch and soil interface. At 20°C the solubility of Oftanol in water is 20 ppm, which means it will dissolve in water but will not move rapidly.

In research on heavier soils (silty loam), the active ingredient and the next analogue was not found below two inches in a treated area. Although there is not enough information on Oftanol leaching in sandy soils based on the above research findings, Mobay does not expect the Oftanol to leach in soil.

Ground cover weed control

Problem: *Name some chemicals to safely kill crabgrass and weeds within ground covers such as junipers, ivy, etc. (Maryland)*

Solution: A number of preemergent herbicides such as Betasan, Dacthal, Enide, or ornamental weeder can be used safely to control crabgrass and other weeds in ground covers such as juniper, ivy, etc.

Since different herbicides may not be safe to use around the same ornamentals, read and follow directions on the label.



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Questions should be mailed to Problem Solver, Weeds Trees & Turf, 7500 Old Oak Boulevard, Cleveland, Ohio 44130. Please allow 2-3 months for an answer to appear in the magazine.