

during dry periods.

Caution must be advised when considering the practical implications of directional differences described in this study. Though the differences are real, they are not pronounced enough to recommend radical changes in everyday procedures. It might be tempting to conclude, for example, that root balls should be larger on the north side of the trunk where root densities are higher. In reality, the increased root surface area in the root ball would be minute, and the south side of the tree would probably be under even greater stress as a result of the reduction of roots. A more appropriate use of this information would be to keep the tree in the same directional orientation (keep north the same) in its new location in the landscape.

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ABSTRACT

GILL, STANTON. 1989. **Cleaning up insects with insecticidal soap**. Grounds Maintenance 24(7):34, 38.

In these days of heightened public concern about pesticide use, pesticide applicators are under more scrutiny than ever before. The revival of insecticidal soap has resulted from this search for non-traditional methods of control. Insecticidal soap's appeal comes from the selectivity of insects controlled and low mammalian toxicity of the material. Because insecticidal soaps control a narrower range of insects, they're less likely to inadvertently kill beneficial insects. This characteristic, as well as low persistence in the environment and low mammalian toxicity, make soap a promising tactic for use in integrated pest management programs. Various types of soaps have been used for insect suppression since the last half of the 19th century. Before 1940, researchers described the mode of action and efficacy of these soaps. Insecticidal soap is composed of potassium salts of several fatty acids. According to the popular theory, the fatty acids disrupt the pest's cellular membrane which causes the loss of cellular contents and cell death. I tested the efficacy of insecticidal soap on azalea lace bug and the Eastern tent caterpillar. Timing was critical for lace bug control because you want to kill the nymph. The key to good caterpillar control was the ability of the sprayer to severely damage tents, thoroughly covering the caterpillars inside the webbed nest, as well as those on the branches and leaves.