

# ask the expert

BY BALAKRISHNA RAO

## Easing drought stress

**We have been experiencing a severe drought in New Jersey this year. What can we do to lessen stress to mature trees?**

— NEW JERSEY

**D**rought-stressed trees can weaken and decline or die if corrective measures are not provided at the proper time. Generally, the following plants are subject to drought stress:

- young, newly transplanted plants with limited root systems or plants whose absorbing roots have been cut off during transplanting operation;
- shallow-rooted plants; a large number of plants growing in a limited soil area; and
- mature trees with limited water supply or resources.

Drought can dehydrate plant tissue and can cause scorching, wilting, defoliation, dieback and/or death in some situations.

Consider providing the following for management:

- Apply mulch (no more than 3 to 4 in.) to prevent moisture loss.
- Provide water as needed — deeply but infrequently. Generally 2 in. of water per week is enough on clay soil. This may vary, depending upon the soil type.

For example, 2 in. twice a week may be needed on sandy soils. Monitor the soil moisture using moisture meters such as tensiometers or other portable digital meters.

There are some water absorbing polymers in the market. Their practical use in

landscapes needs further research. Similarly, the benefit of a number of water dispensing tools placed around the trunks of trees, antidesiccants, biostimulants and mycorrhizae products also need further study. Reports suggest that properly fertilized trees and plants having mycorrhizae have been helped by drought effect. Consider fertilizing using slow-release, organic fertilizer as needed — preferably before the drought.

- Reduce biotic stress such as early foliage diseases and leaf feeding destructive insects and mites, which can deplete the nutrient reserve of the plant. Once the plant is stressed, opportune agents (pests) like borers and/or canker diseases can establish on weakened plants. If so, provide for their management as needed.

- Reduce the stress from abiotic factors such as construction, soil disturbance, compaction and root loss from digging, fill damage and deicing salt application, to name a few.

- Reduce compaction by providing vertical and/or radial trenching to aerate the soil.

This is a guideline to help manage the drought problem and should not be considered a recommendation to deal with a specific drought situation. Each situation should be studied/diagnosed, and proper treatments should be provided as needed.

## Managing juniper scale

**We are finding severe infestations of juniper scale on upright junipers. They are planted as hedge plants along a property line. What is the best way to**

**manage this problem? Some of the plants have branch dieback. Will these branches come back?**

— PENNSYLVANIA

**J**uniper scale can become a serious pest. They can build up in numbers each year on an infested plant. The needles, particularly on the pfitzer juniper, turn yellow due to scale insect feeding. These sucking insects can weaken plants. At first, they are whitish in color, but turn gray to black as they age. Scale overwinters as adult females.



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Juniper scale

Treat with horticultural oil (dormant oil) in early spring. Also, use insecticides such as Malathion, Talstar or Dursban from mid-May to late-June when the crawlers (young nymphs) emerge. Two or three thorough treatments may be needed at 10-day intervals to clean up heavy infestations.

Ideal timing would be when the second instar nymphs (crawlers) begin to settle down and before they develop a hard cover. This would be mid-June to the end of June. After that, consider using 2% oil to manage it from June through September. Fertilize and water as needed to improve plant health. Read and follow label specifications.

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**SEND YOUR QUESTIONS TO:** "Ask the Expert" Landscape Management; 7500 Old Oak Blvd.; Cleveland, OH 44130, or email: [sgibson@advanstar.com](mailto:sgibson@advanstar.com). Please allow two to three months for an answer to appear.