

## **VEGETATION MANAGEMENT**

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

**Q**: A number of our clients had problems late this summer with browning needles on blue spruce. These trees were not recently transplanted, and I could not find any diseases or insects.

A: It is very difficult (if not impossible) to diagnose a problem without seeing the plant. I can only relay to you the problems on blue spruce that were sent to our diagnostic lab in late summer.

Some herbicides will cause needle browning without also causing the needles to twist and curl. This is unlikely in your situation because of the apparent general nature of the problem, but it is one possibility.

Delayed symptoms of winter injury is another possibility. Although foliar injury is usually evident in the spring, the symptoms of root injury may be delayed until a drought occurs.

Cytospora canker is a fairly common problem on blue spruce. However, you should have noticed the bluish-white resin associated with Cytospora on at least a few of the trees.

We had a number of samples of blue spruce that were heavily infested with mites which you may not have seen unless you looked closely. The mites can be seen in the field with a 10X hand lens. The needles turned from yellowish-green to brown in a very short period. Apparently, applications of carbaryl for insect control killed the predators of mites and allowed a population explosion to occur, resulting in considerable browning and premature drop of the needles.

**Q**: We had a lot of problems this year with crabgrass. Are the pre-emergent herbicides becoming less effective?

A: Many areas in the Northeast and Midwest reported poor crabgrass control. However, I have not seen any evidence that the herbicides are at fault. We suspect that the delayed spring was partially responsible, but I'm still collecting data and talking with others in the lawn care industry and research for ideas. If any of the readers have suggestions, I will accumulate the information and report it in this column in the February issue.

