

## BROWNING OF EVERGREEN

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We began the growing season with some evergreen trees and shrubs turning brown and now appear to be ending the season with a little more evergreen browning.

In spring, most browning is due to winter drying. When needles turn brown during fall, it can be due to a number of factors including natural needle drop, spruce mites, bagworms or fungal disease.

To reduce spring browning, it is important to water evergreens now. Keep the soil moist 8 inches deep from the trunk to 4 to 6 feet beyond the dripline up until the soil freezes. Be sure to avoid overwatering. We've had hot, dry weather this year making fall watering critical.

At this time of year, needle browning can be due to natural needle drop which is harmless. It occurs about every three to seven years on most conifers and is as normal as shade trees dropping their leaves in fall.

Natural needle drop shows up as a sudden yellowing or browning of almost all interior needles. In some cases, only one and two year old needles remain green. When touched, discolored needles easily fall off the tree. Again, this is natural and nothing needs to be done.

The only pest for which control might be needed this late in the season is spruce mite. These cool season mites are active only in spring and fall. They spend the summer in the egg stage.

To check for mites, tap an off color branch over a white sheet of paper. If specks that drop onto the paper begin to crawl around after a few seconds, they're likely mites and not dust. This test works best if a small branch is brought indoors as there will be no wind to move the specks around.

If quite a few mites are found, the tree can be hosed down with a strong stream of water to dislodge mites. Another option is applying a summer oil or insecticidal soap according to label direction.

When checking evergreens, especially spruce, arborvitae and junipers, also look for bagworms. While bagworm numbers were significantly decreased this year due to last winter's cold temperatures and predators, some trees are still infested.

At this time of year, bagworms are two inch long, triangular shaped bags covered with fragments of brown needles. The bags will be tightly attached to twigs and filled with eggs for overwintering. Insecticides will not control them at this stage.

From now until June, pick and destroy as many of the bags as feasible. In late June of next year, an application of a chemical insecticide or the organic compound *Bacillus thuringiensis* can be applied to infested evergreens for bagworm control.

There are fungal diseases that infect evergreens and lead to browning over the summer. However, fungicides applied at this time of year will not control diseases. The correct fungicide needs to be applied at the correct time next spring, usually in April and again in May, to have any effect.

If a disease is suspected, now is the time to identify if browning is due to a disease to know if fungicides applications are warranted next spring. Some signs of needle diseases are browning of needles from the bottom of the tree up and inside out, dead needs on branch tips, or red or yellow spots on needles.

Evergreen samples can be brought to an Extension office for identification of issues if needed.