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Insect Problems on Narrow Leaf Evergreens

For additional mites and scales on evergreens see appropriate previous section on mites and insects.

Are conifers with yellow tips always suffering from insect damage?

Conifers with yellow tips usually indicates too much moisture. So before blaming insects, check the soil, the planting depth, and the amount of moisture your conifer is getting!

What are the most common insect problems on narrow leaf evergreens?

Bagworms. See arborvitae section.

White Pine Weevil kills the terminal leader, causing the characteristic shepherd's crook, and resulting in stunted, deformed trees. White pine, Norway spruce, Scotch pine, and jack pine are readily attacked. Pitch pine, red pine and red spruce are occasionally attacked.

Prune them out above the nearest living whorl of branches. Discard or destroy prunings off-site since the pest can continue developing inside. The weevils prefer trees 3-15 feet high that are relatively out in the open, with thick leaders, and growing on poor, shallow soil with bad drainage. The weevils seldom attack pines growing in the shade of other species.

The terminal leader may have glistening resin droplets several inches below the terminal bud from feeding punctures. This resin will turn white as it dries and the attacked leader will appear off-color.
If the shepherd's crook is cut open, legless juveniles with brown head capsules can be observed tunneling downward. The needles turn brown as the summer progresses; new adults will chew bb shot holes through the bark as they emerge. Discard or destroy prunings off-site since the pest can continue developing inside.

Turpentine Bark Beetles: Japanese Black pine decline is partly caused by bark beetles. The presence of bark beetles can often be detected by white resin or pitch tubes on the lower part of trunk or stumps. Infected trees and stumps should be removed AND destroyed by burning or burying to eliminate breeding sites.

European pine sawfly eats old needles and the bark of new shoots. It seldom kills because it doesn't eat new growth. They feed in a clump, and will rear back on their hind legs when

disturbed. Trees up to 15 feet are most severely affected, especially scotch, mugo and jack pines. When flowering quince is in bloom, you'll see sawflies (late May).

Again, a strong stream of water is the answer. If you see sawflies later than June, it is the red headed pine sawfly.

Adelgids are STRICTLY conifer pests with bodies covered with waxy threads. The spruce gall adelgid makes a gall on Douglas fir. It causes little yellow spots and bent needles, general yellowing, and small, pineapple shaped waxy balls. They need a Colorado blue spruce nearby to complete their life cycle.

Pitch mass borer. The insect damage is unsightly, rather than especially harmful. Areas on the trunk that have been mechanically injured are especially susceptible to attack. Avoid wounding or pruning in the spring just before the adult moths fly or summer when moths are emerging. The single juvenile lives and feeds in the cambium and large piles of pitch and frass accumulate around the feeding area until the caterpillar turns into a moth. Areas that have been previously attacked are subject to repopulation. The pest requires 2-3 years to complete its lifecycle. It is mainly a problem on five needled pines.

Eastern pine shoot borer. Adults emerge shortly after two needled Scotch pines break bud. Juvenile damage is similar to the white pine weevil in that shepherd's crooks are formed, but in the case of this pest side branches are also attacked. It is mainly a problem on five needled pines. Weakened shoots often droop or break, and there is needle loss. Mulching beneath the tree may help to reduce the numbers of this pest.

European pine shoot moth. The juveniles tunnel around in buds and new young shoots, causing them to have brown stunted needles or to die and giving the whole tree a reddish cast in cases of severe infestation. They mainly occur on Austrian pines and other two needled pines. Light infestations may actually make the tree look better because it makes it look bushier. The juveniles are small and reddish brown.

Nantucket pine tip moth. Juveniles tunnel around in the bases of needles or buds, are even smaller than the previous pest and are tan in color.. They cause similar damage. You may also see Eastern pine shoot borer, which we talked about above. Again, they are pests on two needled pines.

Zimmerman pine moth. The moth tunnels under the bark of terminal shoots as a pink or greenish juvenile, and injured twigs will have a mixture of pitch and frass at the entry site of the juveniles. They are especially prevalent on Austrian pin..

Pales weevils. The adults hang out in leaf litter under the trees they are infesting. They are attracted to freshly cut pine stumps, fresh pine bark and sawdust, particularly of Scotch pine. They eat pine bark and can do damage to young trees in particular. The weevil is rusty black with brown spots.

What specific insect pests of arborvitae (AV) might I see?

Problems with AV are often associated with waterlogged soils as well as insects.

Mites. Mites can cause yellowing and specking of foliage. Look for shriveled tips of branchlets which indicate excessive dryness or a heavy infestation of spider mites.

AV leaf miners. Hold the browned foliage up to the light. The mined area is translucent and you will also see emergence holes of the tiny caterpillars. The caterpillars burrow into the leaf scales beginning in summer, with peak feeding injury in the fall ultimately killing branch tips. Foliage will turn yellow then brown as damage progresses. Prune out heavily infested twigs or branches. AV leafminers tend to be attracted to plants in shady places.

Bagworms. These pests prefer AV to all other trees. Because bagworms are cold sensitive they are not a problem on AVs in their more northerly range. Prune out the largest bags early since these have the eggs. Bagworms tend to like evergreens in warm, sheltered spots. Bacterial pathogen *Bacillus thuringiensis* Kurstaki (BTK) is very good against tiny caterpillars less than one inch long but NEVER use pheromone traps.
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Normal Fall Browning: AV sheds its oldest branchlets in the autumn and the plant may appear to have very serious interior browning.

Vertebrate damage: Deer and rabbits love AV. Dogs and cats will often mark AV because of its strong scent but AV is sensitive to salt and to urine and browns quickly .

What specific insect problems am I likely to see on hemlocks?

Hemlock wooly adelgids are terrible pests of Canadian hemlocks. They secrete a fluffy white waxy covering and will turn your healthy hemlocks into dying yellow sticks in a matter of a few years.

DO NOT FERTILIZE because it makes the problem much worse. Eliminate bird feeders in or near your hemlocks because the adelgids often hitch a ride on the birds. Water trees during hot dry periods. If the wooliness is not gone within two weeks of treatment, treat again.

Check eggs a couple of weeks after treatment. If they are still plump and watery if you prick them with a pin, they are still alive and re-treatment will be necessary.

Hemlocks and scale

If you see yellow banding on hemlock, you may have a case of ***Cryptomeria* scale**. This scale has a transparent, waxy cover. It gets on hemlock and true fir and turns them a grayish green with heavy infestations.

The **elongate hemlock scale** is hard to control. Control is aimed at late May to early June, but crawlers continue to emerge throughout the entire growing season. This scale may be especially prevalent on fir as well.

Can mealy bugs be a problem on yews?

Yes. *Taxus* mealy bugs. They attack yew, dogwood, *Rhododendrons, Prunus*, maple, andromeda, and crabapple. They resemble sugar frosted pill bugs. You'll see sparse foliation and

needles, and twigs caked with honeydew. They feed on the inner bark of the trunk and branches and may cluster in crotches of plant branches.

Is there a list of typical scales that infest narrow leaf evergreens?

Hard scales (no honeydew or sooty mold produced)

Juniper scale. Infested junipers do not develop new growth and the old growth is off-color. Branches turn yellow and die. This scale is circular and white and looks like a poached egg. Crawlers appear in late May or early June.

Hemlock scale. Mature scales are always found on the undersides of needles of hemlock or spruce and resemble tiny snails. Symptoms include small yellow spots on the upper sides of the leaves. Needles fall off with a load of 4-6 scales.

Elongate hemlock scale. This scale is primarily a pest of eastern hemlock but occurs on yew, spruce and fir located near heavily infested hemlocks. Infested growth yellows, drops prematurely and growth slows. Many of the crawlers are present in late May, but may be present at many other times of the year.

Soft Scales (honeydew produced

Fletcher scale on yews causes foliage drop and a heavy covering of sooty mold. Twigs and stems are the worst. Eggs hatch mid-June and yellow crawlers concentrate on a particular branch or part of the infested plant. Plant damage is most obvious in spring, which is when you see the most sooty mold. Eggs all hatch around the same time, so a single application of a control is likely to take care of most of the crawlers.

Cottony *Taxus*/cottony *Camellia* scale. You can find this pest on *Camellia*, holly, *Hydrangea*, Japanese maple, *Euonymus*, *Magnolia*, and beautyberry. Adults are mottled, tannish-yellow and are shaped like an elongate convex oval. The egg sac on the underside of a leaf or needle is ridged. Eggs hatch in June. Settled crawlers are visible by mid-July. Damage is mostly seen in early spring and late summer and appears as off color, light green foliage.