



## Insect Management in Christmas Trees: Pines and Cedars <sup>1</sup>

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**Table 1.** Identification and Management Practices for Christmas Trees.

Symptoms of Damage	Common Name	Description of Pest
Resin and silk webbing on new growth; shoots dead or dying-back. Larvae feed and pupate in damaged shoots	Nantucket pine tip moth	Head and body light brown to dark orange; 10 mm length when mature (larva)
<p><b>Comments:</b> Virginia, spruce and sand pines, and also loblolly and slash pines, are hosts. Four to five moth generations per year.</p> <p><b>Management Practices:</b>  <b>Cultural:</b> Prune out and destroy infested tips if feasible.  <b>Chemical:</b> Spray trees with labelled insecticide such as Cygon (dimethoate), Asana (fenvalerate), Orthene (acephate) or Dimilin (diflubenzuron). Control of the first generation is essential to effective management. Object is to kill 1st and 2nd instar larvae. Pheromone traps are available to aid timing of applications. Spray 5-10 days after first moth catch in pheromone traps in warm weather, 14 days in cool weather.</p>		
Masses of brown pellets in webbing on stems or branches. Larvae pullclipped-off needles into web-nest for feeding	Pine webworm	Dark and light brown head; light brown body with 4 darker stripes; 19 mm lengthwhen mature (larva)
<p><b>Comments:</b> Attacks all pines. Young pine seedlings 1-2 years old are most susceptible; older trees seldom infested. Three to four moth generations per year.</p>		

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**Table 1.** Identification and Management Practices for Christmas Trees.

Symptoms of Damage	Common Name	Description of Pest
<p><b>Management Practices:</b>  <b>Cultural:</b> Handpick and destroy the nests and larvae where practical. Promote tree vigor to aid in recovery from defoliation.  <b>Chemical:</b> Spray trees with a labelled insecticide such as malathion, Orthene (acephate), or Sevin (carbaryl).</p>		
<p>Branches unevenly defoliated; groups of larvae feeding together at endsof needles; green to brown pellets on ground underneath damaged trees</p>	<p>Redheaded pine sawfly</p>	<p>Red head, yellowish-green body with six rows of irregular black spots; 25 mm when mature (larva)</p>
<p><b>Comments:</b> All pines are subject to attack. Three to four sawfly generations per year</p>		
<p><b>Management Practices:</b>  <b>Cultural:</b> Diseases and parasites often control sawflies. Handpick and destroy colonies when feasible. Promote tree vigor and health.  <b>Chemical:</b> Spray trees when larvae are small with an appropriately labelled insecticide. Possible insecticides may include Cygon (dimethoate), malathion, Orthene (acephate), and Tempo (cyfluthrin).</p>		
<p>Dead or dying seedlings with girdled stems; damage heaviest near fresh pine stumps</p>	<p>Reproduction weevils (Pales &amp; Pitch-eating weevils)</p>	<p>Light to dark brown weevils with light patches on wing covers; long curved snout and long legs; 8 - 12 mm long (adult)</p>
<p><b>Comments:</b> One to two weevil generations per year. Attack all pines. Damage occurs primarily from March through June. Weevils breed in fresh pine stumps or roots of dead and dying trees and can kill nearby seedlings. Seedlings and young trees adjacent to recent clearcuts may sustain severe debarking damage. Damage greatest to trees nearest clearcut, but may extend over 200 ft. into a Christmas tree farm or other young pine stands.</p>		
<p><b>Management Methods:</b>  <b>Cultural:</b> Uproot and burn fresh stumps; also any dead or dying trees. If possible, delay planting near freshly cut-stumps for one year.  <b>Chemical:</b> Spray stumps and soil within 3-foot distance with Dursban (chlorpyrifos). Spray foliage and stem of seedlings with Dursban.</p>		
<p>Needles curling, turning mottled yellow or bronze in color; silk webbing may be present between or on needles</p>	<p>Spider mites</p>	<p>Several species involved; color varies from dark green, brown, red to pale yellow; 0.5 mm length</p>
<p><b>Comments:</b> Attack pines and cedars, especially during warm, dry weather. Multiple generations per year.</p>		
<p><b>Management Practices:</b>  <b>Cultural:</b> Minimize insecticidal use whenever possible. Buildup occurs after frequent use of many insecticides.  <b>Chemical:</b> Spray trees as instructed with properly labelled pesticide; possible pesticides may be Kelthane (dicofol), Mavrik (fluvalinate), diazinon, and Ornamite (propargite).</p>		
<p>Black sooty mold. Stunted tree growth; ants often present</p>	<p>Pine aphids and soft (tortoise) scales</p>	<p>Aphids are soft bodied, pear-shaped; may be green, yellow, brown or black; 1 - 6 mm length. Scales are brown with white streaks; approximately 6 mm diameter; round, convex body</p>
<p><b>Comments:</b> May attack all species of pines.</p>		

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Symptoms of Damage	Common Name	Description of Pest
<p><b>Management Practices:</b>  <b>Cultural:</b> Generally controlled by beneficial insects if routine insecticide applications haven't reduced beneficial populations. Control ants, which protect aphids and scales from beneficial insects.  <b>Chemical:</b> For direct control of aphids and scales spray trees with a properly labelled insecticide such as Orthene (acephate), Talstar (bifenthrin), malathion, Tempo (cyfluthrin), Dursban (chlorpyrifos), insecticidal soap, and horticultural oils. Control colony-protecting ants by placing ant baits in mounds.</p>		
<p>Stunted, curled, chlorotic needles. If scales are numerous, needles appear white due to large numbers of scales present</p>	<p>Pine scale and Pine needle scale</p>	<p>Elongate, white body with yellowish-orange tips; 3 - 4 mm length. The two scales are similar in appearance</p>
<p><b>Comments:</b> All pine species may be attacked.</p>		
<p><b>Management Practices:</b>  <b>Cultural:</b> Parasites usually keep scale populations at low levels.  <b>Chemical:</b> When necessary to suppress high populations, follow label instructions for insecticides such as Orthene (acephate), Dursban (chlorpyrifos), malathion, and horticultural oils.</p>		