



# Woody Ornamental IPM

## Juniper Scale

Juniper Scale, *Carulaspis juniperi* (Bouche), an introduced pest of European origin, is an occasional problem in the western Pennsylvania landscape. It feeds on the stem or the leaf of the host plant, with moderate infestations resulting in unsightly brown patches. The insect will often go unnoticed until the plant declines and even dies if the infection is severe.



### Plants Attacked

The ornamental junipers most commonly attacked are redcedars, *Juniperus virginiana*, Irish juniper, *J. hibernica*, Savin juniper, *J. sabina* and Pfitzer juniper, *J. chinensis* 'Pfitzeriana'. Juniper scale will also attack cypresses, *Cupressus ssp.*, falsecypress, *Chamaecyparis ssp.*, and incense cedar, *Calocedrus decurrens*.



Normal foliage (top) scale infested foliage (bottom)



Juniper scale crawlers

### Insect Identification

The adult female scale is 1/16" - 1/20" in diameter and white colored with a central yellow spot, and resembles a miniature fried egg. Male scales are smaller with a more elongated appearance and a yellow spot on one end. Newly hatched crawlers are bright yellow, but soon fade to a tan color before forming their white waxy covering. They are most readily found on the underside of the foliage and may also be revealed by tapping an infested twig over a piece of white paper.

## Life History

- Over-winter** The female, filled with eggs, over-winters on the foliage.
- Spring** The female matures and then dies soon after laying up to 40 eggs (mid-May).
- Summer** The crawlers emerge from underneath the female scale (throughout June) and settle at a new feeding site on the same host plant. They can also be blown onto other plants or spread by birds. In late summer, (early July through mid-August) the male seeks out the female, they mate and the male dies soon after.
- Fall** The female continues to grow until late fall when she is nearly fully developed and ready to over-winter. There is one generation of juniper scale per year in Pennsylvania.

## Damage Symptoms

Light infestations result in foliage that is off color and less lustrous looking. If uncontrolled, the foliage turns brown, and branch dieback occurs. This could continue until the whole plant is dead.

## Management Options

<b>Biological</b>	The larval and adult stages of dustywings and lady beetles are common predators of juniper scale and several species of parasitic wasps help control this pest. . If beneficial predators are present, the use of “predator friendly” insecticides such as insecticidal soap or horticultural oils should be used, and pest populations closely monitored.
<b>Mechanical</b>	The removal of heavily infested foliage will reduce population and help manage the infestation.
<b>Chemical</b>	Dormant horticultural oil applied in early spring can be used to suppress an outbreak of scale. It is not as effective in areas where scale is clustered together. Contact insecticides may be used during the growing season to kill the newly hatched nymphs (crawlers) but will not kill the adult scale.

A closely related species, *Carulaspis minima* attacks arborvitae, *Thuja sp.*, spruce, *Picea sp.* and probably all the species attacked by the juniper scale.

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