

Juniper and Minute Cypress Scales

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Juniper scale (*Carulaspis juniperi*) and minute cypress scale (*Carulaspis minima*) are closely related armored scale pests that attack arborvitae (*Thuja* spp.), cedar (*Cedrus* spp. and *Calocedrus* spp.), cypress (*Cupressus* spp.), juniper (*Juniperus* spp.), and other Cupressaceae hosts (Figure 1). These pests are found along the eastern and western coasts of North America. Although their ranges overlap, juniper scale is more commonly found in the cooler, northern regions and minute cypress scale is more common in the warmer, southern regions.

Description

Armored scales have a hardened outer layer over their bodies that provides protection and contributes to management challenges. Adult females of both species produce circular, white covers with yellow centers that resemble a fried egg (Figure 2). Observation of microscopic features are necessary to differentiate the two species. Males produce a slender white cover and emerge as small, winged insects when mature. Males do not feed and only live for a short time.

Figure 1: Scale infestation. Females are circular and males are elongate



Figure 2: Adult female scales



Life Cycle

Juniper and minute cypress scales produce a single generation per year, and mated adult females are the overwintering stage. Egg laying and crawler emergence occurs around May but may vary with geographic location. Females lay an average of about 40 eggs, which hatch after about two weeks (Figure 3). The emerging crawlers disperse to find a suitable feeding location on the foliage, or they may disperse on the wind or on birds. Once scales “settle,” they insert their mouthparts into plant cells, their legs degenerate, and they can no longer move.

Figure 3: Female cover flipped over to expose eggs and emerging crawlers



Damage

Armored scales feed in the parenchyma cells (food storage area) using long, slender mouthparts. They do not produce honeydew like soft scales, which feed in the phloem. Small infestations are generally not a significant concern for healthy plants, but larger populations can reduce plant vigor and result in abnormal coloration, uneven growth, and dieback.

Management

Dormant applications outside of the growing season will reduce the overwintering population of these pests and help to prevent light infestations from becoming damaging. Note that adult covers may remain on the plant for extended periods after the scales have died. Where infestations have approached damaging levels, products must be applied during the crawler stage when the insect is vulnerable. Once the immature crawlers produce the waxy covering, insecticide applications may be less effective and product choices become more important. Please contact your Bartlett Arborist Representative to learn about management strategies.



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