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Rose Scale

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Introduction

Rose scale *Aulacaspis rosae* (Bouché) is an armored scale in the family Diaspididae within the Order Hemiptera. Adult rose scale, like other armored scales, live under the waxy, protective cap or shell-like covering they secret from wax pores.

Description

Grayish white, flattened, scale insects (Fig. 1). Older specimens may look dirty. Females are circular in shape and up to 3 mm (0.125 inch) in diameter. Males are smaller, narrower, and elliptical in shape. The eggs and the mobile crawlers are reddish-orange in color.



Figure 1. Rose scale (US National Collection Scale Insects Photographs, USDA ARS, Bugwood.org).

Life History

The life cycle of rose scale consists of the egg, nymphal, and adult stages. Rose scale overwinters as eggs laid under the covering of the mother. Orangish crawlers, which are the mobile, unprotected, first instar nymphs, wander about freely before selecting a site to settle after temperatures warm in the spring. Older nymphs begin secreting the waxy scale covering. Adult males are tiny, winged, fly-like insects that can travel in search of females, but adult females remain immobile under their scales until they lay eggs and die.

Rose scale is most active during the warmer months. A second generation may occur in August under good conditions for scale populations.

Common Host Plants

Rose (*Rosa* spp.) and caneberries such as blackberry, raspberry, and dewberry.

Distribution

Rose scale is found throughout the United States.

Damage

Rose scale removes plant sap through its piercingsucking mouthparts. Look for grayish-white encrustations at the base of the canes (Fig. 2). Heavy infestations can weaken or kill canes. Attacked plants may show yellowed foliage, dropped leaves, and reduced flowering before dieback or death.



Figure 2. Typical infestation of rose scale (US National Collection Scale Insects Photographs, USDA ARS, Bugwood.org).

Cultural Control

Prune out and destroy all heavily infested canes. Keep down weeds in the planting. Check new plants for scales before purchasing. Plants with vigorous growth are less susceptible to rose scale than plants under stress or in less favorable sites, but do not over fertilize plants. Light infestations of rose scale can be gently scraped off the canes, but this is not likely to completely control the infestation.

Organic/Biological Control

Apply dormant oil or horticultural oil in late spring before leaves open to suffocate the overwintering eggs. Spray when temperature is above 50°F and freezing is not expected within 24 hours after application. Dormant spraying with liquid lime sulfur may also give some control. Encourage lady beetles and parasitic wasps that attack scale insects by planting nectar-producing flowers near plants susceptible to scale insects. Beneficial insects are attracted to this additional habitat that provides them with shelter and supplementary food.

Chemical Control

Use a registered insecticide against rose scale and follow all label instructions and precautions. Consult the current Virginia Pest Management Guide Home Grounds and Animals (VCE 456-018) for home gardens, and the Horticultural and Forest Crops (VCE 456-017) for commercial caneberries and rose nursery crops. As with all pesticides, follow the label instructions carefully with regards to rates and precautions.

If used, insecticides should be applied during the crawler stage or when crawlers have just settled and are still vulnerable. Rose scale crawlers are expected in late May through the end of June in Virginia. Scout for active crawlers in June and again in mid-August for a possible second generation; treat if crawlers are found. Do not treat plants when in flower and pollinators are active.

Note that dead scales, whether dead of natural causes or by insecticide treatment, will remain attached to the canes until worn away. After treating infested plants, monitor new plant growth to ensure that the rose scale population is not moving on to it, an indication that additional treatment may be necessary.

Revised

Theresa A. Dellinger, April 19, 2022.

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