

## Obscure Scale

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Scales are insects that use their needle-like mouthparts to pierce their host and draw food from nutrient-rich tissues just under the bark or outer surface of foliage. Obscure scale (*Melanaspis obscura*) is an armored scale in the family Diaspididae. Armored scales form a hard, protective layer over their bodies while feeding, and they are more difficult to manage than other scales. Obscure scale attaches to the bark of the trunk and large stems, and has many potential hosts including dogwood (*Cornus* spp.), oak (*Quercus* spp.), maple (*Acer* spp.), beech (*Fagus* spp.), willow (*Salix* spp.), hickory (*Carya* spp.), and more. Obscure scale is distributed throughout the United States.

### Description

Obscure scale can be difficult to detect, especially on trees with darker-colored wood, hence their name. Their bark-colored/grayish waxy cover reaches only 3 mm in diameter when the insect is mature. Sometimes, a small cap can be seen near the center of the cover (Figure 1). In medium to large infestation levels, the scale coverings can build up and resemble roughened areas of bark (Figure 2).

### Lifecycle

Adult female obscure scales lay their eggs through a large portion of the summer and into August. These eggs soon hatch and the newly emerging nymphs, called crawlers, emerge and settle nearby and often under the already existing waxy cover of mature or dead scales. Peak crawler emergence occurs between June and July, depending on geography. Once a crawler has settled, it begins extracting sap from the vascular tissue beneath the bark and the older nymphs will secrete a waxy cover of their own in the fall. This insect completes only one life cycle per year, but can have overlapping generations of adults, crawlers, and nymphs. This can make managing obscure scale challenging since this insect is most effectively managed at the crawler stage.

**Figure 1: Two obscure scale on a maple stem**



### Damage

Obscure scale infestations usually do not result in tree mortality. However, severe infestations cause major stress to the tree and can lead to premature yellowing of foliage, leaf drop, and even branch dieback (Figure 3), making trees unsightly. Furthermore, trees experiencing major obscure scale infestations become susceptible to other, more serious issues because of the stress imposed by the scale. Honeydew production and black sooty mold growth are not associated with armored scales so this is not an issue with obscure scale.

**Figure 2: Heavy obscure scale infestation resembling rough bark on an oak stem oak**



**Figure 3: Obscure scale infestation leading to branch dieback on oak**



## Management

Obscure scale prefers stressed plants. Therefore, maintaining proper tree health is the ideal first step. Proper fertilization and irrigation, exposing root collars, and adding mulch 2-4 inches thick around the critical root zone are practices that help prevent obscure scale infestations. However, once detected, obscure scale should be managed immediately to prevent population explosions. Frequent monitoring for pests like obscure scale is extremely important and should be part of a holistic integrated pest management program. Therapeutic products are also available for obscure scale management and are typically very effective. Please contact your Bartlett Arborist Representative to learn more about monitoring programs and management strategies.



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