



OYSTERSHELL SCALE IN NORTHERN ARIZONA ABOVE 6000 FOOT ELEVATIONS

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Figure 1. Oystershell scale on a willow stem. Note newly developing scales.



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Figure 2. Oystershell scale on an aspen trunk.

The oystershell scale, *Lepidosaphes ulmi*, is a common armored scale insect on a variety of plants in the higher elevations of northern Arizona. They resemble tiny sea shells with a mottled grey appearance (Fig. 1). Usually when a gardener spots them they have multiplied into a colony covering large areas of the stem (Fig. 2). The scales damage the plant by inserting their hairlike mouthparts into thin bark regions of the tree and sucking the sap out. Heavy infestations can kill plants. Aspen, lilac, ash, willow, and maple are vulnerable because the thin bark offers a good feeding site. Other plants that form a thick corky bark are not good hosts.

The insects over winter in the egg stage under the scale of the female. Upon hatching the young insect crawls about on the plant looking for a suitable site to begin feeding. This stage of the life cycle is called the crawler stage. They remain mobile for only a few days after hatching. Once they settle down and begin to feed, they develop a waxy coating that forms a shell-like covering over their bodies. This cover protects the insect from many predators, parasites and insecticides.

The best method of control is to physically remove the scales. This can be done by scrubbing the scales off with a stiff nylon brush. If a mild soap solution is used when brushing, it will aid in destroying the insects. A strong stream of water from a hose or power washer can be effective at removing scale but be careful not to damage the bark of the plant.

Oystershell scale could be easily managed with insecticides sprayed on the bark when the insect is in the crawler stage. However, since they are in the crawler stage for a very short time period, insecticides are impractical as a control method. Another method of control is spraying the plants with a dormant oil prior to bud break in the late winter. This will suffocate the insects, thus preventing them from hatching in the spring. If dormant, summer or superior oil is present on the stems when the insect is in the crawling stage they can be killed by the oil. If a heavy infestation is discovered in the summer, a superior or summer oil can be applied to the trunk and stems of the tree. **Be sure to**

follow label instructions so as not to cause any damage to the leaves.

The twice-stabbed lady beetle (*Chilocorus stigma*) is a predator of oystershell scale (Johnson & Lyon, 1991). Populations of this beetle can be promoted by not using insecticides or oils when present.

References

Furniss, R.L. and V.M. Carolin. 1977. Western Forest Insects. U.S. Department of Agriculture Forest Service, Miscellaneous Publication No. 1339.

Johnson, W.T. and H.H. Lyon. 1991. Insects That Feed on Trees and Shrubs, 2nd Edition. Comstock Publishing Associates, Ithaca, New York.



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