

Lichens of Woody Ornamentals

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Introduction

Lichens are specialized organisms typically composed of an Ascomycete fungus combined with a green or blue-green alga. The alga receives food and protection from the fungus, and the fungus receives some nutrition from the alga. Lichens are distributed worldwide. They are most often seen growing on the bark of many living and dead trees (Figure 1). They can



Figure 1. Lichen growth on trunk of oak tree.

also occur on the surface of rocks, soil, fence posts and even on utility wires. Many lichens are quite susceptible to various air pollutants and can even serve as indicators of air pollution. They are also food for animals and

help break up the surface of rocks, thus initiating soil formation.

Symptoms

Lichens are commonly mistaken for plant diseases; however, they are not considered “true” parasites or pathogens of landscape shrubs and trees. In rare instances, if lichen growth becomes very dense on trees, small branches and twigs may be killed. This can be explained by a reduction in light absorption or gas exchange to the stems. Slow-growing or declining plants are more likely to support the growth of lichens. These plants usually become stressed for reasons other than lichens.

Life Cycle

Lichens are classified into three groups as to their body form. The lichen body may be leaflike in organization, or foliose (Figure 2),



Figure 2. Foliose lichen on oak twig.

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crust-like, or crustose (Figure 3) or shrublike, or fruticose (Figure 4). Lichens are dispersed by fragments of the lichen body being carried by wind, water or animals.



Figure 3. Crustose lichen on rock.

Management

Control in the home landscape is usually not necessary. If lichens become too unsightly or abundant, they can usually be brushed off stems or tree trunks with a stiff brush when the lichens are dry.



Figure 4. Shrublike (fruticose) lichen (photo courtesy R. Tumlison, Henderson State Univ.).