

# 13. *Cylindrosporium* Leaf Spot of Buffaloberry and Skunkbush Sumac

Glenn W. Peterson and Jerry W. Riffle

Buffaloberry (*Shepherdia argentea*) and skunkbush sumac (*Rhus trilobata*) are commonly used in shrub rows in Great Plains windbreaks and in wildlife plantings.

## Hosts and Distribution

The leaf spot diseases of skunkbush sumac and buffaloberry were detected in an eastern Nebraska nursery in the early 1960's. The leaf spots are caused by fungi in the genus *Cylindrosporium*. The fungi have not been identified to species; however, they are similar to *Cylindrosporium* species that have been described on other *Rhus* and *Shepherdia* species. *C. toxicodendri* has been found on *R. toxicodendron*, *R. trilobata* and *R. diversiloba*; *C. shepherdiae* has been found on *S. canadensis*. The distribution of these fungi in the Great Plains is not known.

## Symptoms and Signs

Circular to irregular leaf spots develop on skunkbush sumac; these spots have tan centers and dark borders. Spotted leaves ultimately turn yellow and drop prematurely (fig. 13-1). On buffaloberry, the leaf spots are irregularly shaped, with tan centers and olive borders. Spotted leaves ultimately become necrotic and drop prematurely. Initial symptoms (leaf spots) on both shrub species develop in late May; considerable defoliation of buffaloberry may occur before mid-June.

## Disease Cycle

Detailed information on the disease cycle is lacking.

The primary source of spores for initial infection in the spring is probably fruiting bodies that have overwintered on fallen leaves. Leaves are initially infected in May. The fruiting bodies (acervuli) form within the leaf spots and produce slender, septate spores which average 32 by 2.5  $\mu\text{m}$  on buffaloberry and 49 by 2.7  $\mu\text{m}$  on skunkbush sumac.

## Damage

Nursery production of skunkbush sumac and buffaloberry is hindered by these leaf spot diseases. Infected seedlings grow poorly due to premature defoliation; they often are kept an additional year in the nursery to reach size sufficient for planting. Damage by these fungi is seldom extensive in field plantings.

## Control

Captan or maneb provided adequate control of these fungi in tests in an eastern Nebraska nursery. The first application should be made in mid- to late May. Several applications are necessary to protect newly developing foliage.

## Selected References

- Peterson, Glenn W. Control of *Cylindrosporium* leaf spot disease of *Rhus trilobata* and *Shepherdia argentea* seedlings. *Plant Disease Reporter*. 51: 700-701; 1967.  
Saccardo, P. A. *Sylloge Fungorum*. 11: 582; 1895.  
Saccardo, P. A. *Sylloge Fungorum*. 25: 623; 1931.



Figure 13-1. Defoliation of skunkbush sumac seedlings caused by *Cylindrosporium* sp.