

Red Leaf of Lowbush Blueberry

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Introduction

Red leaf is a common disease of lowbush blueberry caused by the fungus *Exobasidium vaccinii* Wor. The disease is widely distributed throughout the province but in most fields the incidence of the disease is low. It becomes systemic within the plant, resulting in reduced plant vigour and yield. There has been one report of disease levels as high as 30%, but this is not typical. Disease surveys in Maine and Nova Scotia indicate that red leaf seldom exceeds 5%.

Infected blueberry clone



[Click picture to enlarge](#)

Symptoms

In fruiting fields infected plants are easily recognized in June and July by the brilliant red colour of their leaves. The lower surface of infected leaves becomes covered with a white spore-bearing layer of the fungus. This distinguishes diseased plants from those showing natural bronzing. By midsummer, infected leaves drop and the disease is inconspicuous for the remainder of the season. Diseased plants may fail to flower and usually do not produce much fruit. Symptoms reappear on the same plants each year and infected plants eventually may become weakened and die. The symptoms on first year sprouts are less conspicuous.

Infected plant on left



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Life Cycle

The fungus overwinters in the shoots and rhizomes of infected plants. New sprouts arising from infected rhizomes will be infected. The fungus produces a white spore producing mat on the underside of leaves in June and early July. It is not known how important these spores are in the spread of red leaf. Red leaf spores can cause infections under controlled conditions such as in environmental chambers and greenhouses. It is probable that infections in the field only take place when there are extended wet periods during the time of spore release. Laboratory studies have shown that some clones are resistant to infection.

Control Strategy

Growers have made little attempt to control red leaf, and, generally, the incidence of red leaf is low. Where growers do consider red leaf to be a problem, diseased plants should be eradicated by spot spraying with a recommended herbicide in the sprout year. However, even a low incidence of to 3% red leaf is often so evenly distributed throughout a field that any attempt to kill infected plants with a herbicide will result in unacceptable damage to nearby healthy plants. The practice of burn pruning does not control rhizome infections but may destroy new infections in the shoots that have not progressed into the rhizome.

Prepared by: Rick Delbridge, Plant Pathologist
Nova Scotia Department of Agriculture and Marketing and
Nancy Nickerson, Mycologist, Agriculture & Agri-Food Canada
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