

Cranberry Pest Management

Red Shoot Disease of Cranberry

Red shoot, caused by the fungus *Exobasidium perenne*, is a relatively minor disease of the cultivated American cranberry (*Vaccinium macrocarpon*) and the wild small cranberry (*Vaccinium oxycoccus*). The red shoot fungus is related to the fungus that causes red leaf spot. Red shoot has been reported in Wisconsin, Massachusetts, the Pacific Northwest, and in the Atlantic maritime provinces of Canada. Red shoot is not an economically important disease, and specific control recommendations have not been developed. However, the distorted, red or yellow shoots have sometimes been misidentified as a weed, making growers think that an herbicide should be applied. The fact that red shoot is a disease has been confirmed by taking fungal spores from infected plants and inoculating them onto healthy plants; the inoculated plants then developed red shoot symptoms.

Symptoms and Signs

Symptoms first appear in the spring on current year's shoots that occur singly or as a cluster arising from a node on a buried runner. Affected shoots do not produce flowers but rather are

spindly with red or yellow leaves that are slightly more round than typical oblong cranberry leaves (Figures 1–3). By mid summer the lower surfaces of leaves become covered with white, powdery fungal spores. Shoots wither after the fungus has shed its spores. Diseased shoots break off easily from the



Figure 1. Clusters of red shoot in a bed of 'Searles'. The orangish-rust colored shoots to the left are not affected by red shoot, but rather a different problem such as upright dieback.



Figure 2. Early symptoms of red shoot compared to healthy uprights (at left).



Figure 3. Later symptoms of red shoot compared to healthy uprights (at left).

buried runner, but if dug carefully from the ground, one can observe that the shoots originate from nodes along the runner (Figures 4 and 5).



Figure 4. Red shoot-afflicted uprights attached to below-ground node on a runner.

Disease Cycle

The fungus overwinters in diseased cranberry runners. Infected shoots arise from nodes, often where infected shoots were attached in previous years. Spores are produced on the undersides of leaves and shed during mid to late summer. How spores go on to cause further infections is not known.

Control

Red shoot is generally not economically important, and control measures have not been developed.

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Figure 5. Closer view of afflicted uprights (red arrow) attached to below-ground node on a runner (blue arrow).