

Mitigating Winter Vole Damage

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With heavy snow levels throughout much of Montana this past winter, we have seen and heard many reports of considerable vole damage in yard and garden landscapes.

Voles can feed on and cause damage to a variety of plants including turfgrass, trees, and shrubs. Winter damage is often inconspicuous or non-noticeable in lawns and on roots and bark of woody plants under the cover of snow. Damage becomes apparent after the snow melts in the spring and can vary in severity depending on the extent of damage and the type of plant affected.

In lawns:

Voles can create burrows and runways within lawns that result in bare pathways. Dead grass and accumulated excrement from these vole runs should



Image of Vole Damage in lawn. (Photo: David L. Clement, University of Maryland, Bugwood.org)

be raked out immediately in the spring to allow the new crowns to begin growing and filling in the area. A light application of fertilizer can also be used to promote growth. Depressed regions or areas of extensive damage

can be filled with topsoil and overseeded with a suitable grass mix to encourage a quicker recovery.

In trees and shrubs:

Voles and other wildlife (e.g., rabbits) feed on the bark of trees and shrubs, girdling branches and trunks by damaging or completely removing the bark around the entire circumference of the woody plant. Depending on the extent and severity of feeding on woody plants, recovery may be possible. The first step is to examine the trees and shrubs and assess the severity of damage.

Shrubs with healthy root systems and some girdled branches should be pruned in spring below the area of feeding damage to encourage the growth of new shoots. In trees, the severity of girdling in addition to the age of the tree can indicate whether it would be

possible for the tree to recover.

In older trees with incomplete girdling, proper care should be taken to make sure that the tree is free from external stressors (ensuring sufficient water and nutrients) to encourage the likelihood of survival. The tree should be monitored during the growing season, and protected with a tree wrap or screen wire for the following winter to prevent further feeding damage.



Image of Vole Damage under snow. (Photo: Robert L. Anderson, USDA Forest Service, Bugwood.org)

Make sure the wire wrap protects the tree trunk below the soil line and extends high enough above the possible snow line to prevent voles, rabbits etc. from reaching the trunk.

Young trees (1-2 years old) with complete (100%) girdling damage will most likely decline and die over time since the water and nutrient flow is disrupted. In most cases, replacing the compromised tree is the best course of action.

In older and established trees with complete tree damage, the tree will not survive without intervention. If this is a tree that you want to save, a process called 'Bridge Grafting' is a possibility, though this is not a viable option for all trees. This is a 'tree surgery' that requires the collection of scion wood from the tree in the early spring, and grafting it above and below the area of vole damage all around the base of the tree to reconnect the root system to the tree. Detailed instructions on this procedure are included in the resources below.

Preventing vole damage:

Prevention of vole damage includes a variety of approaches including habitat modification, sanitation practices, physical barriers, repellants, traps, and toxicants. (More information on these can be found in the resources below).

For more information, take a look at these resources:

<file:///C:/Users/d74m944/Downloads/VolesinMontana.pdf> • <https://ag.umass.edu/turf/fact-sheets/vole-damage-to-lawns>
https://www.canr.msu.edu/news/bridge_grafting_as_a_life_saving_procedure_for_trees
<https://www.purdue.edu/fnr/extension/winter-damage-of-the-furry-kind/>
<https://extension.wvu.edu/agriculture/horticulture/bridge-grafting>