

COLD AND SNOW COVER EFFECTS IN THE LANDSCAPE

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With recent extreme cold temperatures, are plants at risk of injury? It depends on the type and health of the plant, the plants hardiness zone, and snow cover.

For small herbaceous perennials, like strawberries and perennial flowers, snow cover is a good insulator. Given the fairly short period of extreme temperatures, small plants covered by snow should be fine. Exposed plants are subject to injury, especially strawberries and perennials hardy to zones 5, 6 or higher.

We know it is warmer beneath the snow as soil temperatures this past week remained in the 26 to 30 degree Fahrenheit range.

For plant parts on shrubs, fruit trees and shade trees that are above the snow line, most should be fine if the plant is healthy and hardy to cold hardiness zone 4 or lower.

Zone 5 plants will likely be okay since the cold hit in February when plants were fully dormant, compared to mid to late fall when plants may not be dormant. However, I have seen zone 5 plants killed by extreme temperatures. Some examples are peach, sweet cherry, tulip trees, sweet gum, some Magnolias and some Viburnums.

Plants stressed by drought or disease and insect pests can be more susceptible to cold temperature injury; hence we may see plant kill or dieback on plants we assume will be okay.

For the flowering buds of fruit trees, ornamental trees or shrubs, these could be affected. We had a warm period prior to the cold. If any flower buds swelled, even slightly, during this time, some may be killed by extreme cold temperatures. Only this year's bloom and fruit crop will be affected.

Two issues we see with snow cover is an increase in vole or snow mold injury to lawns and wildlife feeding damage to trees and shrubs.

The greatest economic damage will be to valuable trees. To protect these plants from wildlife feeding, hardware cloth can still be put on tree trunks above the snow line to exclude the animal; or repellants can be applied to plants.

Voiles are likely feeding on turfgrass beneath the snow. Voiles are small, mouse-like rodents that exist throughout Nebraska. Vole damage appears after snow melts and the feeding runs are noticed in a lawn.

They damage lawns by clipping the grass close to the ground when feeding. Rarely do they damage plant crowns or roots and once spring growth resumes, the damage repairs itself.

Snow Mold is a fungal disease that appears in early spring as snow melts. Pink and gray snow molds can both become active beneath snow cover, but they require a specific set of conditions to develop. Those conditions were not present when our first snowfalls occurred and the likelihood of snow mold developing this year is low.

Snow mold is most likely to develop when snow falls on unfrozen soil. We had cold temperatures for a long enough period of time prior to snow cover that this was not the case this year. If it does develop on some lawns, damage from snow mold disease typically repairs itself once new growth begins on lawns.