

Minimize Cold Damage to Your Lawn in the Winter

Lawns can take a beating in the winter, whether you live at high or low elevation. There are some strategies you can follow to minimize cold damage to your lawn this winter. Many people are unaware that lawn grasses behave differently in the winter in each region of the foothills. When we do get frosted by those Arctic fronts that move down from Canada, grass injury is normally limited to leaf damage. Once warmer weather returns, grass leaf tips may look brown or yellow. But the lawn will usually recover in a few weeks. Damage can be more severe if turf receives concentrated foot traffic while it is frozen. When that happens, individual grass plants can be killed leaving you with dead spots come spring time.



At higher elevations, grasses generally go dormant in the winter. As days get shorter and night and day temperatures drop, grass growth slows down. Since we generally get lots of sunshine during the day, grass produces plenty of sugars via photosynthesis. As sugars accumulate, water in grass crowns and rhizomes decreases. An increase of sugars and decrease of water in grass tissues allows plants to tolerate cold.

Continuing increasing cold will kill the older grass leaves, and higher elevation lawns will begin to look brown. Even though the turf looks dead, it is alive and ready to grow again when temperatures warm up in the spring. Cold damage in lawns is worst in windy areas. Desiccation, or death by moisture loss, often occurs as grass tissue continues to lose moisture it can't replace, because the roots are frozen in the soil and can't take up any water. Since living turf is also often brown in the winter, the damage is often unnoticed until the turf fails to grow in the spring. The areas most likely to be damaged by desiccation are often at the crest of a rise, on top of mounds or on slopes or other areas most exposed to the wind.

Don't worry too much about bitter cold in the early part of winter. Turf is rarely killed directly by low temperatures, except in the spring. Once growth resumes in the late winter or early spring, grass is most susceptible to cold injury. Here are some strategies to help minimize cold injury in lawns:

Avoid applying excess fertilizer in late summer and early fall. Lawns that are pushed hard with nitrogen tend to remain succulent as the turf enters the normal hardening off period, thereby reducing cold tolerance. Late fall is a good time to apply up to two pounds nitrogen per 1,000 square feet without decreasing cold tolerance. Late fall fertilizing will stimulate early spring color and reduce the need for mid-spring nitrogen applications.

Continue mowing as long as the grass keeps growing.

Remove tree leaves off lawns, as they smother turf and foster snow mold growth.

Make sure lawns are adequately watered as fall approaches. This will decrease the likelihood of winter desiccation injury.

Keep off the lawn as much as possible, especially if it is frozen. During rainy periods, the soil is usually saturated. Saturated soil is especially prone to compaction, making grass growth difficult in the spring. Coring in the spring can offset the effects of compaction.

This article adapted from Cooperative State Research, Education and Extension Service, USDA. Please contact Ken Churches at cdcalaveras@ucdavis.edu or (209) 754-6475 with your agricultural questions. To speak with a Certified Master Gardener: Calaveras (209) 754-2880, Tuolumne (209) 533-5696, Amador (209) 223-6837, El Dorado (530) 621-5543.