Evergreens only seem carefree because they don’t make a big show of dropping their foliage every time a little cold weather comes around. Evergreens do not completely go dormant like deciduous trees, but their needles do undergo seasonal changes.

Although most evergreens are associated with needles, a few broadleaf trees are also evergreens, says Jerry Goodspeed, Utah State University Extension horticulturist. However, in northern Utah, most broadleaf evergreens are shrubs rather than trees. Examples of common evergreen shrubs include the evergreen euonymous, laurel and Oregon grape.

There are also some conifer trees that have needles and yet are not evergreens, he adds. Although they are not common in Utah, the large bald cypress and dawn redwood shed needles every fall and regrow each spring. This is confusing for some people.

“I recall one individual who dug up his bald cypress in the fall because it turned brilliant orange/brown colors, then lost all its needles,” Goodspeed says. “He thought it was dead, so he brought it into my office looking for an explanation for its early demise. It was kind of awkward to explain to him that he actually killed it himself, by digging it up. I suggested next time he find out a little about a tree before ripping it out of the ground.”

Evergreen trees are not immune to dropping their needles, since most needles die after a few years, he explains. In fact, most needles only live four to seven years. For some trees, this is a continuous process with some needles dropping throughout the year. Although these older needles turn brown and die, this normally takes place in the interior of the tree, so they go unnoticed. Needles covering the soil around the base of the tree are usually the only evidence.

For other evergreen trees, older needles turn yellow and brown and drop all at once in the fall, just like leaves do from deciduous trees, Goodspeed says. This can alarm homeowners who are unfamiliar with this process. Needles also drop from a tree when it is stressed. Different conditions, including too much or too little water, dry winds, damaged roots, insect damage and some diseases can weaken the health of evergreen trees, causing them to drop their needles prematurely.

If the stress is severe, a tree may even lose young needles, he says. When needles that are three years old or younger are turning brown and dropping, the tree is telling you it is stressed. It
may need some changes made to its environment.

The first thing to check is the water supply, Goodspeed says. Many homeowners think that watering their lawn provides enough water for their trees. This is usually not the case. Turf grass has shallow roots so it is only watered a few inches deep into the soil. Trees prefer a deeper water supply. In normal water years, this moisture is supplied through our winter snow and rain fall. When there are two or more dry years in a row, trees start to get thirsty. A deep watering throughout the year can help resupply needed water.

That said, the more common problem for trees planted in the lawn is over-watering, he says. This excess moisture causes the tree's surface roots to rot and die, then it loses its ability to transport the available water. This often occurs in heavy, clay soils.

Another cause for premature needle drop is excess shade, he adds. As a tree matures, the lower branches become more and more shaded. Too much shade reduces the efficiency of the needles. The tree senses this and drops them. In severe shade, the lower branches eventually die.