

Does your lawn have winterkill?

Willie O. Chance III

Houston County Extension Agent

wchance@uga.edu

We expect lawns to green up in the spring. Some lawns do not do so. Sometimes there will be dead patches in a lawn. Although this can be due to diseases, the problem can also be winterkill. Perhaps this information will help you to diagnose and cure these problems.

Winterkill is a common problem in middle Georgia. Areas of a lawn may never green up after the winter. Does this mean the winter killed the lawn? I thought our winter weather was not very severe in Georgia.

Winterkill can be worse during very cold winters, but winterkill is not just due to cold weather. Winterkill is worse on stressed lawns. Stresses to the lawn through the year weaken the lawn and the turf dies in the winter. The real problem is the stress. The cold, dry winter weather is just the straw that breaks the camel's back.

Here is a list of the types of things that stresses lawns. Find and correct these problems to improve plant health and to try to reduce winterkill next year.

Traffic and hard soils are major factors causing winterkill. The roots are the arteries and veins of the plants. Turf cannot grow strong roots in compacted soils.

Soil compaction from construction, parking cars, etc. can last up to 40 years. You can see how this can be a lasting problem. The best way to relieve this is to till with a tiller or disk harrow before seeding lawns. If you have large dead areas that are compacted, till them before putting grass out again. Be careful not to till under trees or around buried utilities. Before you dig, call (800) 282-7411.

Once grass is growing in an area, you cannot easily remove compaction. You can aerate soils but this is not nearly as good as tilling. If you do aerate, wet the soil deeply first and use a core aerator. This type aerator has hollow tires or spoons that will pull up cores of soil. Cover 15% of the soil surface with holes when core aerating.

I believe **improper watering**, especially during July through October, can weaken grass leading to winterkill. Do not water lawns every day or every other day! Water deeply but infrequently so lawns can develop deep, strong roots. I do not like for lawns to be watered more often than every five to seven days in the summer. Twice a week may not be too often.

When you water, apply 3/4 to one inch every time. How long will this take? Turn on the system, put a pan under it and time it. Water this long each time and wait for the lawn to

show moisture stress before you water again. The lawn will turn grey, the leaves will roll up and you will be able to see your footprints in the lawn when it needs water again.

Trees and shade can cause winterkill. Trees also make drought worse. Some trees can really take the water out of the soil. Have you considered replacing the turf around the tree with mulch or ground cover? Are you irrigating properly under the tree? Shade resistant grasses like St. Augustine or Zoysia may work better under trees than Bermuda grass.

Lawns with **thatch** thicker than one half inch deep are prone to winterkill. Cut down through your lawn and measure the depth of the thatch layer. St. Augustine lawns can stand thatch layers up to one inch deep. If the thatch layer is thicker than this, you may need to dethatch the lawn. See this brochure on thatch control - <http://pubs.caes.uga.edu/caespubs/pubcd/L394.htm>

Centipede lawns are susceptible to **improper mowing height**. Mow centipede lawns from one to one and a half inches high. Higher mowing heights can weaken the lawn leading to winterkill. Other grasses are not as susceptible to improper mowing height but can be damaged by incorrect mowing.

Wet soils can stress lawns as well, leading to turf decline and death. This could be a low area that holds rain water in the winter or an area wet because of water flow, downspouts etc. Some grasses (Bermuda grass, carpet grass) can take more moisture and may perhaps grow in these areas. Wet areas are more prone to grow certain types of weeds like the sedges as well.

Other stresses that can lead to winterkill may include slope, diseases and insects. For more information on lawn diseases see this site - <http://pubs.caes.uga.edu/caespubs/pubcd/B1233.htm>

Gardeners often wonder if a herbicide killed their grass. This is sometimes hard to tell. I look for spray patterns when I try to diagnose this problem. Does the pattern of dead grass follow the pattern of spraying? If so then herbicides may play a role in the death of the grass.

I often wonder if herbicide damaged lawns have been weakened by these other factors I have mentioned. Healthy lawns can usually survive a weed killer. How much blame should be put on the chemical and how much on the care the lawn receives? The lesson I learned is not to put herbicides on weak lawns (non-irrigated, thatchy or watered too often in summer.) Especially avoid weed killers on these lawns during green up -when the grass is especially sensitive.

Winterkill is not caused by cold weather alone. Care and environmental factors prepare the lawn to resist or succumb to winter weather. Start preparing your lawn now to resist next winters cold, dry weather.

If you suspect winterkill, look for these problems. Once you identify the problem, solve it and then replant the area that has died. Give the lawn the best possible care so it will recover and be strong enough to survive next year's winter weather.