

Getting to the Root of the Problem
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While wondering what to write about this week I had a caller who wanted to know why his backyard is 90% straw colored and the front yard is green. He said that the grass looked great going into the fall and had “died” sometime during the winter months. Of course he wanted to know what to do to make it come back again. He mentioned that he had spoken to several people who all had suggestions for him, some of which were conflicting with each other. I find this to be the case more often than not.

I found that he had power raked, watered, and fertilized last fall, and still had this large brown area. He claimed that he could not see any green in the area. We talked about disease as a possibility. I asked him many questions about his cultural methods. What tipped me off was the fall fertilization during the end of September or early October. High applications of nitrogen can stimulate top growth and cause the grass to not over winter well. But, there was more to this story. Remember the front yard is green.

I found that his house is a relatively new home and we talked about soil properties. Construction companies are notorious for leaving the homeowner with soils that are not up to snuff. They remove the top soil leaving the subsoil and drive pay loaders, trucks, and other heavy equipment on it which causes a compacted situation. I remember landscaping an apartment building a few years back and we could not even dig a hole to plant the trees. On top of these compacted soils, the landscaper brings in a few inches of top soil to fix all the construction generated soil problems.

This soil situation can cause a number of problems. First the soil is rock hard and roots have an extremely difficult time penetrating into the soil. Secondly, water and nutrient movement is all messed up. When two soils of different textures are on top of each other, the upper layer must be completely saturated before any water will move into the lower layer. This can cause the soil below to be either very dry or very wet. Add some irrigation to this and you have just spelled disaster.

I did have a few suggestions for him to try. I instructed him to check for compacted soils. Taking a screwdriver and pushing it into the ground gives you a good indication of how compacted the soils are. You should not have to push very hard to get the screwdriver to penetrate the soil. If heavily compacted he should aerate as soon as possible using a core aerator. He could even top dress with better soil. Secondly, he should reduce his irrigation to stimulate some root growth into the compacted area. Irrigation should be used only a couple of times per week for longer periods of time in order to put the water deeper into the soil. Run the system twice per week and not every other day.

Grass roots are great soil builders; they break up compaction and exude lots of sugars which stimulate microbe growth. In addition to these suggestions he will have to overseed his entire yard to ensure that his turf has more than one variety. Several varieties give turf lots of protection against diseases and other environmental conditions. Following these simple steps will enable your turfgrasses to better withstand stress, disease, and insect attack without a whole lot of extra work.

As always if you have questions or comments about turfgrass management feel free to call on me at 605-394-2188 or if email is your thing drop me a note at ricky.abrahamson@sdstate.edu.