

Team Play



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Questions?

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THIS Q&A requires a prologue to introduce a great story about teamwork. It starts with Dr. Dave Minner at Iowa State getting a question (with related images) from a diagnostic lab on unusual symptoms that were seen on a bermudagrass field. He had a couple of theories but since he does not encounter bermudagrass turf as much as I do, he passed the question on to me. I had a couple of ideas as to the cause but I decided the symptoms were not the best match for validating my theories.

So I decided to share the question with Dr. Dennis Martin, professor & turfgrass extension specialist at Oklahoma State University. Dr. Martin immediately had two causal hypotheses but wanted additional information from the turf managers before coming to a single conclusion. Once the cultural conditions were reported back to him, his first hypothesis seemed to be the most appropriate, so he offered his diagnosis and treatment based on his experiences. Five professionals later (and just a few days in-between), the mystery seemed solved and a course of action recommended. That is networking and teamwork at its best.

The Question:

The attached images illustrate an issue on a bermudagrass soccer field in northeast Missouri. The grass is producing aerial growth that is tufted and showing multiple tillers. I did not find any bermudagrass mites and no evidence of disease. The field is soil based, established about 10 years ago with Quickstand bermudagrass, but has since been overseeded with some of the newer seeded varieties. Any idea at all what would cause the grass to do this?

Dr. Barb Corwin, Turfgrass Diagnostics LLC

Well, my first thought, which was also similar to Dr. Corwin's, was bermudagrass mites. I have seen my share of mite symptoms, but when I see mite activity it is normally on green, growing shoots. From the pictures it looks like the symptoms were associated only with brown tissue. So, two turf professionals thought perhaps mites, but in the back of my mind it did not seem to be the correct diagnosis.

This is when I decided to get another opinion and sent the question/images to Dr. Martin. He provided the following comments:

"Was this stand overseeded with ryegrass in fall? The reason I ask is that this unusual growth pattern on bermudagrass is often exhibited when the early season shoot growth of bermudagrass elongates above the shading canopy of the ryegrass. As such a 'palm tree like effect' can often be produced in the bermudagrass stand which eventually disappears as those early season shoots senesce or mowing height is lowered and they are cut off and removed.

"The second item to explore is mite injury. I agree with Grady's comment about often seeing a profusion of green tissue associated with mite injury. I just don't see the extreme internode stacking and shoot stunting that I generally associate with mite injury in bermudagrass. We have had a great deal of mite injury in bermudagrass this year. When drought stress strikes many of the shoots die due to disruption of the vascular system and one can see a lot of brown tufts of dead grass. In the case of the grass in these images there is just not the extreme internode stacking that I am used to seeing with mite injury so I believe we are perhaps looking more at the

former case or something else that produces symptoms consistent with those of bermudagrass competing with an overseeded ryegrass."

Dr. Martin's question about overseeding seemed important and I did not know the answer. So, I asked Dr. Corwin, who asked the field manager, and verified that the field was overseeded with perennial ryegrass in the previous fall. The ryegrass was subsequently sprayed out with Revolver herbicide in early June. The field manager also added that the area experienced a wet April and May.

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The conclusion was that the case history concerning the ryegrass overseeding was very telling. While we cannot be 100% certain, the fact that ryegrass overseeding was used on that site and that the growth habit alterations were somewhat consistent with that seen at many other bermudagrass fields that were overseeded lent support to Dr. Martin's first hypothesis. Dr. Martin suggested that the sports field manager just proceed with the normal complement of management practices and continue to scout and monitor. If the theory proves to be true, no change in management practices would be necessary. ■