

Ataenius Update

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Ataenius spretulus, commonly known as the black turfgrass ataenius was investigated in a mowing experiment on a perennial ryegrass golf course for the second year. In 1995, we erased the old fairway/ rough interface and replaced it with a new border (Figure 1). We believed that the mowing height may determine where ataenius populations are located. We also believed that the predators and the milky spore disease which naturally control ataenius grubs are influenced by mowing height. In 1996, we found that ataenius grubs were most prevalent in plots of turf that were mowed to fairway height in 1995, regardless of how it was mowed in 1996. In 1997, we found twice as many grubs in the fairway-mowed turf compared with the rough-mowed turf. From this research, we can conclude that ataenius grubs are found more often in shorter mowed turf. Golf course fairways will often have more ataenius grubs because of the height of the grass, regardless of fertilization, irrigation, cultivation, and fungicide applications.

Predators (rove beetles and ground beetles) and milky spore disease were again monitored this summer. Predators were more prevalent in rough-mowed turf. There seems to be an inverse relationship between predators and ataenius grubs, as the number of predators increases, the number of ataenius grubs decreases. All grubs collected from our plots were also monitored for milky spore disease. We found 68% of the grubs in the rough were infected with milky spore disease while only 34% of the grubs in the fairway were infected. From these results, we can verify that mowing height plays a role in predator populations and infection levels of milky spore disease.

Ant trapping was also done this summer. Entomologists at Purdue University have found a thief ant that is known to consume Japanese beetle eggs. We did not find enough of these ants to suspect any impact on ataenius populations. In the future, we will be investigating why fewer predators and less milky spore disease are found in the shorter-mowed turf.

A very big thank you to Doug Palm and Chuck at Cattails Golf Club.

Figure 1. 1995 and 1996 mowing regime along rough/fairway interface on a perennial ryegrass golf course. Numbers 1-4 indicate sites for pitfall traps and soil cores per plot.

