

CAN TARGETED MANAGEMENT REDUCE NIMBLEWILL IN PASTURES?

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Nimblewill, *Muhlenbergia schreberi*, is a native, warm season, perennial grass in central Kentucky known for its aggressive growth in heavily grazed pastures. Livestock, including horses, cattle and goats, are not known to consume nimblewill, leaving it to persist and spread in pastures unchecked. Currently, there are no herbicides labeled for pasture use in Kentucky to control this grass in a grass stand. The goal of this project was to evaluate the possibility of using competition and shade to reduce nimblewill presence in horse pastures. Four treatments (tall fescue, perennial ryegrass, white clover and a control) were seeded into thick stands of nimblewill in the fall of 2017 in a randomized complete block experimental design. Throughout the 2018 growing season, the plots were split and mowed at three different heights: Low (~3 in), high (~8 in) and hay (only harvested twice in the season). Plots were sampled each month for canopy height and species composition by visual estimation. Three, 1-ft² samples were taken from each plot in August of 2017 and 2018; samples were hand separated by species and weighted to determine species composition. Preliminary analysis of the data suggests that nimblewill presence was reduced in subplots that were mowed high or managed for hay, suggesting shade from other grasses can affect nimblewill growth. Overseeded species had no effect on nimblewill growth. Further research is needed to confirm these preliminary results and to characterize the amount of shade that may be needed to reduce nimblewill in pastures.

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