

## **DEVELOPMENT OF GRAZING RECOMMENDATIONS FOR MANAGING ALFALFA-BERMUDAGRASS MIXTURES IN THE SOUTHEASTERN U.S.**

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There has been growing interest in interseeding high-quality legumes, like alfalfa, into existing bermudagrass stands as a step towards improving forage, animal, and ecosystem stability in the Southeast. Much of the work evaluating these mixtures has been focused on management and production of stored forages (i.e. dry hay/baleage), and limited work has evaluated alfalfa-bermudagrass mixtures under grazing. It has been noted that grazing intensity and frequency impact overall stand production over time, but no published work has evaluated the relationship between harvest height and frequency to better define grazing recommendations. The objective of this research is to evaluate the effect of harvest height and frequency of newly established alfalfa interseeded into an existing hybrid bermudagrass stand, and begin to develop grazing recommendations for management of these mixtures. In 2018, thirty-six alfalfa-bermudagrass plots were established at Crossville and Shorter, AL and Watkinsville and Tifton, GA using a randomized complete block design with four replications at each location. Alfalfa varieties were selected for suitability to location and were either ‘Bulldog 505’ or ‘Bulldog 805’. Treatments included combinations of harvest frequency (2, 4, or 6 weeks) and harvest height (2, 4, or 6 inches), and plots were evaluated for their influence on sward yield, persistence, stand density, botanical composition, nutritive value, and change over time. It is expected that the ‘Bulldog 805’ 6-week, 2-inch plots will have the greatest average yield (lb/ac) over the season and the ‘Bulldog 505’ 2-week, 6-inch plots will have the lowest average yield (lb/ac) over the season. This study is supported by funding from the USDA-NIFA-Alfalfa Forage Research Program (2017).

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