

# Development of Grazing Recommendations for Managing Alfalfa-Bermudagrass Mixtures in the Southeastern U.S.

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## Study Summary

Alfalfa, otherwise known as the “queen of forages”, is slowly making a resurgence in the Southeastern United States as new alfalfa varieties have been developed to adapt and thrive in the region’s climate. While there are many on-going projects evaluating the use of alfalfa interseeded into existing bermudagrass sod, current work has been primarily focused on utilizing these mixtures when producing a stored forage product (i.e. dry hay, baleage). This high-quality, high-yielding legume could play an integral role in livestock grazing systems, however the use of alfalfa-bermudagrass mixtures has not been evaluated extensively for grazing. Previous work has primarily used fixed residual height or fixed rest periods when determining grazing end points, however it has been noted that both grazing intensity and frequency impact overall stand production over time.

The main objectives of this study are to observe the relationship of harvest height and frequency on alfalfa-bermudagrass mixtures, sward canopy characteristics, forage persistence, as well as the nutritive value to determine grazing parameters for an alfalfa-bermudagrass system in the Southeastern U.S. From this work we hope to begin to have a better understanding of the grazing metrics when utilizing alfalfa-bermudagrass mixed stands, to utilize this data in larger scale grazing evaluations, and to adjust recommendations for producers wishing to use these mixtures for grazing across the region.

## Current Progress



Figure 1. Alfalfa-Bermudagrass Harvest Height and Frequency Plot Layout and Design

Small plot evaluations have been established into existing 'Tifton 85' bermudagrass at two locations in Georgia utilizing grazing tolerant, location specific, alfalfa varieties following UGA recommendations. Specifically, alfalfa variety 'Bulldog 505' at the J. Phil Campbell Sr. Research and Education Center in Watkinsville, GA (north), and 'Bulldog 805' at the University of Georgia Coastal Plains Experiment Station, Beef Cattle Center, in Tifton, GA (south). Thirty-six plots have been established at both locations to determine the influence of harvest height and frequency on alfalfa-bermudagrass sward yield, persistence, density, botanical composition, nutritive value, and associated change over time. Once the alfalfa reaches the mid-bloom stage (25% of the plants have flowers), they will be harvested at a 2-, 4-, or 6-week interval at a 2-, 4-, or 6-inch height (see Figure 1).

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