

# Clipping Effect on Yield and Quality of Eastern gamagrass, Switchgrass, Bahiagrass and Bermudagrass.

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## Abstract

Frequent clipping can adversely effect yield, quality and stand survival of native grasses eastern gamagrass [*Tripsacum dactyloides* (L.) L.] and switchgrass (*Panicum virgatum* L.). This study compared the performance of 'Alamo' switchgrass, accession 9062680 eastern gamagrass, 'Tifton 44' bermudagrass [*Cynodon dactylon* (L.) Pers.] and 'Tifton 9' bahiagrass (*Paspalum notatum* (Fluegge) on a 30 and 45 day clipping frequency. Species were planted in May 1994, in 3 by 6 m plots replicated 5 times and allowed to establish for 2-yr before clipping treatments were introduced in May 1996. Measurements included dry matter yield, % protein, ADF and NDF. All species were fertilized annually with 82 kg N ha<sup>-1</sup> and 55 kg K ha<sup>-1</sup> in split applications. Soil pH and P were adjusted to adequate levels based on soil test. No data was recorded for the bahiagrass in 1996 because of freeze damage sustained December 1995. Eastern gamagrass clipped on 45 days yielded the highest average three year season total dry matter with 15 109 kg ha<sup>-1</sup>. However, there was no significant difference between 45-day eastern gamagrass and 30-day bahiagrass at 14 311 kg ha<sup>-1</sup> (2 yr average). Thirty day bermudagrass yielded 11 627 kg ha<sup>-1</sup> and 45 day switchgrass yielded 11 319 kg ha<sup>-1</sup>. Heavy weed competition limited yield and quality for 30-day clippings of switchgrass and eastern gamagrass in 1996 and 1997. While eastern gamagrass and switchgrass did not perform well on 30-day intervals, they can be clipped on 45-day intervals and maintain comparable yields with 30-day bermudagrass and bahiagrass with no difference in quality.

## Key Words:

Eastern gamagrass (*Tripsacum dactyloides*), 'Alamo' switchgrass (*Panicum virgatum*), Tifton 44' bermudagrass (*Cynodon dactylon*), 'Tifton 9' bahiagrass (*Paspalum notatum*), Clipping Frequency, Forage Yield, Protein, Digestibility, Native Warm Season Forage Grasses.