

Brown midrib 6 and 12 genes may provide new forage opportunities in West Africa

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In Niger, cereals stover are a significant source of feed for livestock during the long and dry season which coincides with shortage of feed for small scale farmers particularly in the context of limited availability of natural pasture. In addition, stover market is currently a growing business in Niger. Improving the dry matter yield and the nutritional values of local sorghum elites lines may contribute to mitigate the stover shortage in the country. Through conventional breeding method, *bmr6* and *bmr12* genes were introgressed in two Nigerien elites sorghum varieties to improve their stover value. The derived progenies and parental lines were phenotyped for agronomic performances specially for the grain, fresh stover and dry matter yields and their nutritional contents: dry matter, P, Ca, CP, NDF, ADF, ADL were estimated. The results showed very highly significant statistical differences between the entries for grain yield, stover fresh and dry matter yields and nutrients content. Promising lines were identified. We conclude that the introgression of *brown midrib* genes enhanced the nutritional values of sorghum lines and constitute a sustainable way to improve sorghum lines for dual purpose uses for local farmers.

Keywords: Sorghum - Dual purpose - Feed - Brown midrib - Nutritional potential.

References:

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