

Effect of *Gliricidia sepium* leaves and molasses inclusion on aerobic stability, value and digestibility of Napier grass silage

ABSTRACT

Most tropical roughage feeds are generally deficient in nitrogen, energy or some minerals and vitamins. A study was conducted to evaluate the effect of adding *Gliricidia* (*Gliricidia sepium*) leaves and molasses to Napier grass (*Pennisetum purpureum*) silage. Silage were prepared from Napier grass and mixed with *Gliricidia* and molasses. There were four treatments involved which were NG, containing Napier grass only which was the experiment control, GS containing Napier grass mixed with 5% *Gliricidia* leaves, ML containing the Napier grass mixed with 5% molasses, and MG containing Napier grass mixed with 5% molasses and 5% *Gliricidia* leaves. The treatments were analyzed for aerobic stability, dry matter (DM), crude protein (CP), neutral detergent fibre (NDF), acid detergent fibre (ADF), acid detergent lignin (ADL), and digestibility. There were no significant differences in aerobic stability of silage between treatments, and the treatments with *Gliricidia* were higher in crude protein ($p < 0.05$) and had better digestibility ($p < 0.05$) when compared to the control. In conclusion, *Gliricidia* leaves as additives to Napier grass silage can improve its nutritive value and quality.

Keyword: Grass silage; Napier grass; Aerobic stability; Nutritive value