

## ABSTRACT

This study aimed to determine the quality and *in vitro* digestibility of silage grass *Brachiaria brizantha* cv. MG5 with the addition of some levels of molases. The study used grass *Brachiaria brizantha* cv. MG5 by harvesting 90 days from the garden Forage Animal Feed and Pastures, Department of Animal Nutrition and Feed Science, Faculty of Animal Science, Gadjah Mada University. Silage made from *Brachiaria brizantha* cv. MG5 coupled with 3 levels of molases (0%, 5%, 10%), with fermentation 7, 14, 21 and 28 days, each of which has four replication. The variables measured were physical quality, dry matter, organic matter, digestibility of dry matter, organic matter digestibility. Data were analyzed by variance Randomized Complete Block Design, the difference between the average test performed by Duncan's multiple range test (DMRT). The addition of molases level effect to the decrease of pH, the addition of a 10% decline in pH of the fastest and most low. The results showed that the addition of molases influence on KcBK and KcBO. The results mean and KcBO, KcBK were highest respective silage added that 10% molases were 53.60% and 51.18%. Here is a significant effect ( $P < 0,05$ ) than the addition of molases to the decrease pH level, KcBK and KcBO, it can be concluded that with the addition of 10% molases decreased the pH of the fastest and highest KcBK and KcBO.

Keywords: Silage, Molases, Dry matter, Organic matter, *In vitro* digestibility.