In the central-west region of Brazil, the seasonal distribution of rainfall generates an imbalance in the production of fodder. Moreover, during the dry period, the nutritive value of the fodder decays, due to the advance in the maturation of the plants. To alleviate this problem, several alternatives have been pointed out and used to supply food deficits in herds where basal feeding is like fodder plants, and the most usual is a conservation of fodder for the manufacture of silage. The objective of this study was to evaluate the effect of the addition of additives on a chemical composition of the silage of Urochloa brizantha cv. BRS Piatã. The piatã grass used to make the silage was established in the experimental area of Embrapa Agrossilvipastoril in Sinop - Mato Grosso, being cut and ensiled in experimental PVC silos. Before ensiling, the crushed material was submitted SW bacterial inoculant; With milled grain corn (MGM); Crude glycerin (GB) and soybean molasses (MSJ) in the amount of 100 g.kg\(^{-1}\) of dry matter (DM), while silage containing corn grain (MGM) obtained the highest value. The use of GB, MSJ and MGM promoted better levels of DM, NDF, FDA, CNF (304, 303 and 348 g.kg\(^{-1}\) MS, respectively) and consequently higher NDT content (mean 713 g.kg\(^{-1}\) MS). The silages containing GB and MSJ presented similar values (mean of 303.61 g.kg\(^{-1}\)). GB silage presented a lower CP (80.97 g.kg\(^{-1}\) MV) were recommended as they provided increases in MS, CNF and NDT contents of the silages.

**Keywords:** Crude glycerin, dry matter, organic matter, soybean molasses

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