## AN EVALUATION ON QUALITY OF WATER HYACINTH SILAGE EFFECTED BY ADDING MOLASSES AND GROUND MAIZE

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## ABSTRACT

The objective of this study was to determine the effects of molasses and ground maize as additives to make water hyacinth silage. The experiment was a completely randomized design with 7 treatments and 3 replications. The treatments included 0, 7.70, 11.5, and 15.3% for both sugarcane molasses and ground maize. The observation was done at day 0, 7,14, 28 and 56. The wilting WH was chopped to 2-3 cm and completely mixed with additives. Plastic bags were used for incubation as experimental units.

The results showed that pH values were significantly different among treatments (P < 0.05) at different incubated days. The pH at day 14 was 5.50, 4.45, 4.25, 4.22, 4.83, 4.76 and 4.59 for the treatments of 0, 7.70, 11.5, and 15.3% of molasses and 7.70, 11.5, and 15.3% of ground maize, respectively. The chemical composition of water hyacinth silage was not significantly different (P > 0.05) among the treatments at different observed days, except CP content. From day 14 to 56, CP contents of WH silage made by molasses were significantly higher (P < 0.05) than those of ground maize at the same levels of treating. Ensiling water hyacinth with molasses at the levels of 11.5 and 15.3% had the sour vinegar smell and light yellow color. The results of this study implied that treating water hyacinth with 11.5% molasses (DM basis) could be used for making a good silage .

Keywords: water hyacinth, silage, molasses, ground maize, pH, smell, color.