

## **Abstract**

**This research was carried out to determine the chemical composition and nutritional value of forage cv. Silkworm with non-fermented dates and sugar beet pulp. For this purpose, turnip forage was harvested from the fields of the city and crushed into 4-3 cm pieces for siltation. Forage of turnips with additives per kg of dry matter including non-fermented dates at 5 and 10%, sugar beet pulp in the 5 and 10% volumes inside the 5 kg plastic buckets, and after 45 days silos were opened. Chemical compounds include dry matter (DM), organic matter (OM), crude protein (CP), cell wall (NDF) and homogeneous cellular wall (ADF) with standard methods (AOAC) and organic matter digestibility and Metabolism energy was measured by in-vitro method and dry matter degradation by in situ method. The results showed that the addition of non-fermented dates increased the dry matter, organic matter, fat, cell wall and cell wall without hemicellulose significantly ( $P < 0.05$ ). The addition of sugar beet pulp increased the dry matter and organic matter and reduced the cell wall, the cell wall without hemicellulose and ash. Adding formic acid increased the cell wall, cell wall without cellulose and dry matter, as well as decreased pH and did not have a significant effect on the rest of the chemical compounds. In sum, urea, sugar beet pulp and formic acid, both individually and in combination with chemical compounds, were affected. The degradability results showed that all three additives increased degradability at all incubation times. Also, the results of gas production showed that urea and sugar beet pulp increased the amount of gas produced compared to the control treatment and formic acid decreased the amount of gas produced.**

Key words : Sugar beet pulp, Palm waste, Turnip leaf, Digestibility



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