ABSTRACT

The Effect of Type of Silo to The Additive Ramie Leaf
(Boehmeria nivea, L . Gaud) Silage Quality

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Ramie leaves are byproduct of Ramie plantation. The plant is grown to produce fiber, raw material for textile industries. Annually, per ha of ramie plantation could produce up to 300 tons forage fresh material or equivalent with 42 tons of dry matter (DM). Currently, the leaves are under utilized. An attempt to increase ramie leaves utilization through fresh forage preservation technique (ensilage) have been done in two different type of silo. Silo portable (plastic bag for small capacity) and trench silo (for a larger scale) were compare of their impact on physical (odor, texture, moisture, color and spoilage), fermentative (pH, DM, VFA, DM degradation, CP, NH3, CP degradation, WSC and fleigh number) and utilities (fermentation and digestion) characteristics of silage produced. In general, silo portable (plastic bag) produced better physical characteristics of ramie silage in compare to trench. However, the different were not significantly shown by silage fermentative and utilities characteristics. In trench silo, up to 58% of the silage was spoiled, while in plastic bag there were no spoilage existed. Although extensive degradation (> 50%) of DM were occurred during ensilage in both silo, but only insignificant degradation (< 3%) of CP were found. The silage produced was categorized as quite good (NF 52% – 53%) silages. Ruminant utilities characteristics of both silages showed that the silages were highly fermentable in rumen with moderately digested (56% and 63%) in digestion tracts.

Keywords: Additive, plastic bag, ramie leaves, silo, trench