Study of Nutritional Characteristics of Silages from CO3, CO5, Red Napier (BH18) & Super Napier among Small Holder Dairy Farms in Kilinochchi District, Sri Lanka

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A study was conducted to examine the nutritive values of the silages made from major grasses available in the Kilinochchi District. Inadequate quality forage and the lower availability of forage crops is considered as a limiting factor for livestock production. Introducing of different silage grasses helps to overcome these problems all over the dry zone. In dry zone of the Sri Lanka, insufficient fodder production is one of the main factor restricting dairy production. Silage is a feed that has been preserved by acidification as a result of fermentation in the absence of oxygen. "Ensiled forage" or "silage," can remain intact for up to three years when storing properly. The lack of high-quality forages and their accessibility may be a factor in Sri Lanka for lower dairy productivity of livestock. In dry zone of the Sri Lanka, insufficient fodder production is one of the main factor restricting dairy production. The main objective of this study is to find out the nutritional characteristics of silage made from different grass (Indian red napier, CO5 grass and other napier grasses, CO3 and super napier) grown in Northern part of Sri Lanka. Proper matured grasses were harvested and four silage samples (T1,T2,T3 & T4) were prepared according to the standard procedure. The proximate composition of different types of silage made from different grasses were significantly different (p <0.05). Among the silages, CO5 had the highest percentage of crude protein (CP) (16.07 %) and moisture (75.04 %) meanwhile super napier had the highest percentage of fiber (31.43%), lowest percentage of ash content (2.5%) and lowest percentage of fat content (1.16%). Based on the above results, we can conclude that super napier silage have higher nutrient value compared with other silages. Therefore the silage made from super napier can be suggested for the Kilinochchi district farmers to provide better yield and growth performances.

Keywords: Silage, Ensiling, Forage, CO3, CO5, Red Napier, Super Napier.