Investigation on lime pulp silage characteristics with surplus whole date addition as animal feed

I. Ghasemi and S.M. Mehdizadeh
1. Hormozgan Agricultural and Natural Resource Research Center
2. Animal Sciences Research Institute

The citrus pulp (by-product) from citrus juice factory and surplus whole date are important feed resources for feeding animal. A completely randomized design under factorial (4x5) evaluated effects of different percentages of the surplus whole date instead of molasses in the silage lime pulp compound. Five groups silages prepared and collected samples from silages in four time (45, 90, 135, 180 days). Basic material of silages were contain: fresh lime pulp, wheat straw, urea that silages were contain 6.5% molasses (control), without molasses and surplus whole date, 6.5%, 11%, 15% surplus whole date. Silages prepared in 80 polyethylene bags and collected samples from 20 silages in each time. Silages had good odor and was brown color and became dark by increasing percent of the surplus whole date. The results of chemical analysis indicated that silages of dry mater were 34.08, 33.13, 35.28, 36.24, 36.30 and crude protein 10.10, 10.32, 9.80, 10.01, 9.84 percent and pH 4.00, 4.09, 3.99, 3.97, 3.93 and ammonia nitrogen 48.13, 57.31, 47.88, 39.19, 37.5 g/kg total nitrogen, respectively. There were no significant differences in crude protein of silages (P>0.05). There were significant differences between dry mater, pH and ammonia nitrogen (P<0.01). The most different observed between second (without date and molasses) and fifth (15% surplus whole date) silages (P<0.01). There were no significantly different in exploitation times, except pH. Results indicated that 15% surplus whole date can use in the lime pulp silage and exploit after 45 days.

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1 Corresponding author
E-mail: ibghasemi@yahoo.com