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**Evaluation and Utilization of Silage of some Roots and Tubers
as Feed for Ruminants**

By

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ABSTRACT

Silage of roots and tubers were studied. Silage of potato tubers, sweet potato roots and turnip roots with rice straw or wheat straw without or with urea was making manually in jars and manually and automatically in bags. The rams were used for evaluating seven experimental rations as follows: Ration A: 100% of CP requirements according to NRC (1985) from concentrate Feed Mixture (CFM) + rice straw *ad lib*. Rations B, C, D, E, F and G were fed 60% of CP requirements from CFM + silages of potato, sweet potato, turnip of B, C and D, respectively and silages of potato, sweet potato, turnip containing 0.5% urea of E, F and G, respectively. Silages were fed *ad lib*. Digestion coefficients and rumen parameters were carried out by rams to evaluate rations A, B, C, D, E, F and G. Twenty-four local growing lambs were divided into four groups (6 in each) to evaluate rations A, B, C and D.

Silage fermentation characteristics of different experimental silages indicated that all silages a good quality. Daily feed intake of rations by rams and growing lambs of ration A (control) were higher than all rations while feed intake of rations containing silages was nearly similar. pH was decreased and ammonia-N and VFA was increased at 2 and 4h post feeding than before feeding. The ammonia-N of rations containing silages with urea was significantly higher than control and rations containing silages without urea.

The ration D (containing turnip silage) had highest DBG, best feed conversion, lowest feed cost and highest economical efficiency, while these values were nearly similar in rations B and C (containing potato or sweet potato silages). The bad values were recorded with control of growing lambs.

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