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Effect of chemical processing methods on degradation of soybean straw cell wall components

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In this experiment the effects of 4 methods of chemical processing using urea, limestone and mollasses on degradability parameters of soybean straw cell wall components were studied. Soybean straw was gathered from Babolsar agri-farms in Mazandaran province. The 4 chemical treatments used in this experiment are as follow: 1-untreated soybean straw(SBS), 2-processed SBS with 5% urea solution, 3-processed SBS with 2% urea + 5% limestone solution, 4- processed SBS with 5% urea + 10% molasses solution and 5-processed SBS with 2% urea + 4% limestone and 10% molasses solution. 4 rumen fistulated male lamb (breed of Mazandaran Zel) were used. Degradability parameters were determined using nylon bag method of orscov and Incubation times were as follow: 0, 8, 16, 24, 36, 48, 72 and 96 hrs. at the end of experiment, degradability parameters such as DM, OM, CP, ADF and NDF degradability were determined using AOAC (1990) and VanSoest (1994). Degradability parameters were calculated using NEWAY software and analysis of data was done by Minitab software. DMRT were used for Means comparison at $P<0.05$ level. The results of this experiment indicated that enrichment affects degradability parameters of soybean straw cell wall component. The highest NDF and ADF deg. Belonged to treatments 3 and 5. all chemical processing decreased NDF and ADF content of cell wall.

Keywords: Urea, Limestone, Molasses, Soybean Straw and Degradability parameters

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