Processing Cellulosic Crop Residues for Ruminant Feed

C. K. Sankat and W. Benjamin

Department of Mechanical Engineering, The University of the West Indies, St Augustine, Trinidad and Tobago, West Indies

Abstract: Cellulosic residues such as rice and wheat straw, corn stover and sugar cane bagasse are potential sources of ruminant feed, as ruminant animals are uniquely adapted to utilise the cellulose in high fibre roughages. Most of this material is either destroyed or grossly underutilised, particularly in the developing countries. This paper reviews the methods available for processing underutilised crop residues such as bagasse, through the use of Sodium hydroxide (NaOH) and ammonia (NH_3), into nutritionally improved feed components for ruminants. It is shown this positive effect of NaOH and NH_3 on the in-vitro dry matter digestibility of rice hulls, bagasse and cane tops using experimental data.

Keywords: Cellulosic crop residues, ruminant animals, feed