

**B-88 : IMPROVEMENT OF NUTRITIVE VALUE AND DIGESTIBILITY
OF RICE STRAW USING DIFFERENT CHEMICAL TREATMENTS**

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An experiment was conducted to evaluate the effect of different chemicals in upgrading the nutritive value and digestibility of rice straw. Six treatments were used in this study and the treatments were as follows; Control, NaOH, KOH, Ca(OH)₂, NH₄OH and Urea. All chemicals were used as 4% solutions. Rice straw to water ratio was 1:1 (w/v). The reaction time allowed was 24 hours except for urea (7 d). The treated materials were ground and analysed for proximate composition, cell wall constituents and *in-vitro* digestibilities.

Crude protein, total N and NH₄-N were high (P) in urea and NH₃ treated rice straw due to the contribution of nitrogen through the treatment. Organic matter, total ash, insoluble ash and ether extract was not affected by the treatments (P 0.05). In cell wall constituents, ADF and lignin were reduced (P) by all treatments and cellulose was not affected (P 0.05). *In vitro* drymatter and organic matter digestibilities were significantly increased (P) by all treatments. However, the higher response was shown by the NaOH and KOH. Even though the improvement by urea was not as superior as NaOH and KOH, considering the cost, other hazards and contribution of N, urea could be used as a satisfactory treatment in upgrading rice straw as a ruminant feed.