

# ANIMAL HEALTH & VETERINARY MEDICINE

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## Strategic supplementation with urea molasses block to improve production and reproductive efficiency in straw based diet cows

**Khan MA Samad**

Bangladesh Agricultural University, Bangladesh

In smallholder production system, a major constraint to milk production is the seasonality forced on cow by inadequate feeding during dry season in Bangladesh. Therefore, it is necessary to develop a cost effective supplementary feeding system for poor quality roughage based cattle production. Urea molasses block (UMB) supplementation may be a technology to solve the nutritional inadequacy. 60 crossbred (Holstein Friesian x zebu) lactating cows of 31 smallholder farms were studied to evaluate the effectiveness of UMB during dry (November to April) and rainy season (May to October). Cows were stall-fed and reared mainly on rice straw. Cows of one group received basal diet kept as control (-UMB) and another group received UMB as supplemented group (+UMB) in both seasons. Intake of straw was increased significantly ( $p < 0.05$ ) in supplemented cows of both in dry and rainy season as 1.2 and 0.77 kg/day, respectively. Other nutrients - DM, CP, ME intake was also increased. It was found that milk production in supplemented cows maintained higher magnitude as 1.54 kg/d and 0.73 kg/d in both dry and rainy seasons, respectively. Higher body weight gain of cows was found in dry season (135 g/d) than in rainy season (50 g/d). Similarly, weight gain of calves of supplemented cows was increased significantly ( $p < 0.01$ ). Interval from calving to first estrus was reduced by 31 (166 vs. 135) and 19 (157 vs. 138) days in dry and rainy season, respectively ( $p > 0.05$ ). This result indicates that UMB supplementation is more beneficial to the farmers in dry season.

### Biography

Khan MA Samad has completed his PhD from the University of Aberdeen, UK and Post-doctoral studies from the University of Paderboron, Soest, Germany. Presently, he is the Professor of Dairy Cattle Production, Department of Dairy Science at Bangladesh Agricultural University, Mymensingh, Bangladesh. His special interest is on feed supplementation for milk production and reproduction in milking animals. He has published more than 80 papers in reputed journals of both national and international and has been serving as an Editorial Board Member of repute. Moreover, he is the Member of many scientific societies of the world.

maskhands@gmail.com

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