Degradable intake protein in finishing diets containing dried distiller's grains. K. Vander Pol*, G. Erickson, and T. Klopfenstein, *University of Nebraska*.

Fifty-eight crossbred yearling heifers (BW = 383 ± 25 kg) were utilized in a completely randomized 2 x 2 factorial arrangement of treatments designed to evaluate the effects of finishing diets containing dried distiller's grains supplemented with degradable intake protein on feedlot performance and carcass characteristics. Dietary treatments contained 10 or 20% dried distiller's grains (DDG) replacing corn, with or without 0.80 or 0.63% urea (DM basis). Basal dietary ingredients consisted of dry rolled corn, 5% ground smooth brome grass hay, 5% molasses, and 4% dry supplement (DM basis). DIP balances (NRC, 1996) were -192 (10% DDG no urea), 58 (10% DDG + urea), -111 (20% DDG no urea) and 81 (20% DDG + urea) g/d, and all diets had positive metabolizable protein (MP) balances. Heifers were individually fed utilizing Calan electronic gates, implanted on d 26 with Revelor-H, and slaughtered on d 100 at a commercial abattoir. Further, an aliquot of blood was collected on d 28, 72, and 100, for subsequent blood urea nitrogen (BUN) analysis. No significant differences ($P > 0.05$) were observed for the main effects or interaction on any performance or carcass parameter, with sufficient performance being observed (DMI = 11.1 kg/d; ADG = 1.63 kg/d; G:F = 0.147 kg/kg). Within each sampling date, as well as the average of each heifer's BUN across all sampling dates, there were significant differences ($P < 0.05$) for the main effect of both level and urea. Heifers receiving urea had significantly higher ($P < 0.05$) BUN values than heifers not supplemented with urea. Similarly, heifers fed the 20% DDG diets had significantly higher ($P < 0.05$) BUN values than heifers receiving the 10% DDG diets. In addition, heifers on all treatments had significantly higher ($P < 0.05$) BUN values as time on feed increased. These data indicate excess MP (i.e., when DDG is included) in diets deficient in DIP is adequate enough to supply additional DIP needed in the rumen to maintain performance.

Key Words: Corn, Distiller's grains, Finishing cattle

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