

interaction between treatment and days of aging with respect to shear force ($P = 0.05$), with steaks from Z having 1.56 lbs higher shear value after aging 3 d, 1.15 lb higher shear after 14 d, and 0.85 lbs higher shear after 21 d. However, extending withdrawal from 3 to 10 or 17 d did not alter shear force differences between Z and controls. Feeding Z for 20 d increases carcass weight, muscle, and leanness, but reduces marbling score and tenderness. This study suggests no benefit in extending withdrawal time after feeding zilpaterol hydrochloride for 20 d.

Effects of Ruminally Degradable N in Diets Containing Wet Corn Distiller's Grains and Steam-flaked Corn on Feedlot Cattle Performance and Carcass Characteristics C. H.

Ponce¹, M. S. Brown¹, N. A. Cole², C. L. Maxwell¹, and J. C. Silva¹, ¹Feedlot Research Group, Department of Agricultural Sciences, West Texas A&M University, Canyon, and ²USDA-ARS Conservation and Production Research Laboratory, Bushland, TX

Assessment of degradable N needs in diets containing wet corn distiller's grains with solubles (WCDGS) is needed to aid the cattle feeding industry in managing feed costs and potential environmental issues. Yearling steers ($n = 525$; initial weight = 822 ± 28 lb) were housed in 56 pens (9 to 10 steers/pen) and received treatments in a $2 \times 3 + 1$ factorial. Factors included WCDGS (15 or 30% of DM) and non-protein N (NPN; 0, 1.5, or 3.0% of DM) from urea. The control diet without WCDGS contained 3.0% NPN (1.06% urea) and cottonseed meal. Steers were fed twice daily for 129 d and WCDGS was obtained three times/week from a local plant. Final shrunk BW was less ($P < 0.02$) for 30% WCDGS than for the control or 15% WCDGS. Overall DMI was not different ($P > 0.31$) between the control diet and 15 or 30% WCDGS, but overall DMI increased linearly ($P = 0.04$) as NPN increased. Overall ADG and gain efficiency were affected by both WCDGS and NPN (interaction, $P < 0.12$). Overall ADG for steers fed 15% WCDGS was greater for 1.5 and 3.0% NPN than for 0% NPN ($P < 0.07$, quadratic); however, ADG was not influenced by NPN for 30% WCDGS. Overall ADG was not different between the control and 15% WCDGS, but ADG was lower ($P < 0.02$) for 30% than for 15% WCDGS. Overall gain efficiency among steers fed 15% WCDGS was greatest for 1.5% NPN and least for those fed 0% ($P < 0.07$, quadratic), whereas gain efficiency decreased linearly ($P < 0.09$) as NPN increased in 30% WCDGS diets. No interactions between WCDGS and NPN were evident for carcass traits. Dressing percent was greater ($P < 0.01$) for the control diet than for 15% or 30% WCDGS (65.1, 64.2, and 63.9% for control, 15% WCDGS, and 30% WCDGS, respectively). Hot carcass weight was not different between the control and 15% WCDGS ($P = 0.44$), whereas carcass weight was less for 30% WCDGS than for 15% WCDGS ($P < 0.01$). Other carcass measurements were not different among treatments. Data suggest that optimum performance occurs between 1.5 and 3.0% NPN when diets contain 15% WCDGS, and with 1.5% NPN or less when diets contain 30% WCDGS.

Effects on Ruminal pH, Hydrogen Sulfide Concentration, and Feed Intake When Using Wet Distillers Grains with Solubles to Adapt Cattle to Finishing Diets Compared to Forage

K. M. Rolfe, G. E. Erickson, T. J. Klopfenstein, and J. T. Vasconcelos, University of Nebraska, Lincoln

Eight ruminally fistulated steers (766 ± 74 lb) were used to determine effects of using wet distillers grains with solubles (WDGS) when adapting cattle to a finishing diet. Steers were assigned randomly to one of two adaptation systems: 1) alfalfa hay decreased from 45% to 7.5% inclusion and dry-rolled corn increased while 5% supplement and 35% WDGS were constant

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