Combinations of distiller's grains, gluten feed, and soy hulls for growing cattle. J. Sewell* and L. Berger, *University of Illinois*.

The objective of this trial was to evaluate co-products combinations compared to a program-fed corn based growing diet for feedlot cattle. Crossbred steers (n=400, 272.2 ± 6.80 kg) were allotted to one of 8 diets for 91 d. Dietary treatments were: equal co-product combinations (20-20-20%), high co-product combination (40-20%), or a 60% corn based diet fed at 1.8% of body weight. Co-products used included dry distiller's grains (DDG), corn gluten feed (CGF), and soy hulls (SH). A common diet was fed for the finishing phase (93 d). Orthogonal contrasts were performed for preplanned treatment comparisons. During the growing phase steers fed the co-product combinations had a higher ADG ($P < 0.05$) when compared to the program-fed control steers (1.21 kg/d vs. 1.09 kg/d). The ADG for the 40% DDG/20% SH or CGF steers were greater ($P < 0.05$) when compared to the 40% CGF/20% DDG or SH (1.26 kg/d vs. 1.15 kg/d). The same trend followed for the 40% SH/20% DDG or CGF steers when compared to the 40% CGF/20% DDG or SH (1.21 kg/d vs. 1.15 kg/d). DMI were greater ($P < 0.05$) for the 40% SH/20% DDG or CGF steers when compared to the 40% CGF/20% DDG or SH and 40% DDG/20% SH or CGF combination steers. Steers fed the corn diet had the lowest DMI due to the restricted intake. The 40% CGF/20% DDG or SH steers were more efficient when compared to 40% DDG/20% CGF or SH (.1342 vs. .1457, $P < 0.05$). The 40% SH/20% DDG or CGF steers were more efficient when compared to the 40% DDG/20% CGF or SH (.1295 vs. .1457). PROC MIXED procedure in SAS was used to determine significant differences ($P < 0.05$) for hot carcass weight (HCW), yield grade (YG), rib-eye area (REA), and back fat thickness (BF). HCW was greater for the 40% DDG/20% SH, 40% SH/20% DDG or CGF combinations when compared to the 40% CGF/20% SH steers. The 40% DDG/20% SH steers had higher YG ($P < 0.05$) when compared to the 40% DDG/20% CGF steers (2.93 vs. 2.58). There were no significant differences for quality grade.

Key Words: Distiller's grains, Gluten feed, Soy hulls

Source: J. Anim. Sci. Vol. 83 (Suppl. 2) p. 88