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A Continued Assessment of Local Byproducts in Beef Finishing Diets in Honduras

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Objectives

The continued objective was to further investigate the potential development of nutritionally complete diets using local feedstuffs and to develop replicable management strategies.

Materials and Methods

Diets were designed to assess the gain potential of beef cattle in confined feeding systems across Honduras and the viability of local feedstuffs, rather than the intent of diet comparison. Three finishing diets were formulated using local Honduran feedstuffs such as palm kernel meal, poultry litter, and sugarcane for bulls in confinement. Diets were formulated on DM basis and targeted a positive balance of ruminal degradable protein. Management included vaccination, individual identification, implantation, and treatment of parasites on arrival to the feeding facilities. Additionally, monensin (Monsigran; Monensin Sodium 20; Brazil) was added to all diets. Treatments HM6 through HM11 were fed in the southwest region and HM12 was fed in the central region of Honduras. Cattle were *Bos indicus* crossed with *Bos taurus* and dairy type. Bulls were fed between 68 and 145 d with an average of 112 d. Initial BW ranged from 231 to 479 kg with an average of 363 kg. Bulls were fed to a minimum end point of 400 kg (unshrunk live final BW). Descriptive analyses were performed using UNIVARIATE procedure of SAS (SAS Inst. Inc., Cary, NC) with pen within site as the experimental unit.

Results

Considering all diets, dry matter intake ranged from 9.98 to 12.27 kg/d with an average of 10.73 kg/d. Average daily gain ranged from 0.40 to 2.41 kg with an average of 1.03 kg. Final BW averaged 482 kg with a modest variability (CV = 9.33%). Gain to feed followed similarly to ADG averaging 0.096. Hot carcass weight ranged from 197 to 347 kg with an average of 267 kg. Dressing percent reported an interval of 45.25 to 61.60% averaging 55.26% with low variability (CV = 4.77%).

Conclusion

All diets were viable options for Honduran producers to finish beef cattle depending on feedstuff or byproduct availability. Local byproducts have been effectively blended with other more traditional feedstuffs such as corn to reach sufficient protein and energy. The role byproducts can have within Honduran beef finishing systems has been demonstrated through multiple diets, in various locations across Honduras. More consistent management practices have led to increased dressing percent driven by increased carcass weight. As dressing percent and carcass weight increase, the role of byproduct use to increase beef production are verified. Subsequently, the continued development of better management practices and increased information can be utilized to conduct more intensive research on local feedstuffs and diets across Honduras.