

EVALUATION OF SOY HULLS AS THE PRINCIPAL INGREDIENT IN A BEEF CATTLE RECEIVING RATION

Kija F. Bunyecha

Dr. Kevin Moore, Dissertation Supervisor

ABSTRACT

Adjusting cattle to grain based diets from predominately forage diets remains one of the production problems facing beef cattle producers. When cattle are introduced to grain based diets they have a tendency to experience health problems such as acidosis, founder, and bloat. This study used statistical and economic analysis methods to evaluate soy hulls (SH) as the principal ingredient in a beef cattle receiving ration.

Results showed that weight and average daily gain of beef steers fed 0 % SH and 25 % SH were statistically similar. Animals fed 0 % SH yielded slightly higher net benefits due to lower cost of purchasing the animals. Feed costs for animals fed 0 % SH were slightly higher than those fed 25 % SH. Net benefits per pound of gain showed 25 % SH as the most economic ration. Rations containing 50 % SH or 75 % SH performed poorly.

This study has demonstrated that a ration containing 25 % SH is a potential alternative choice in the formulation of beef cattle receiving rations. Although its effect in the feedlot phase is unknown, the implications of the study includes: First, as soy hulls become part of an array of ingredients, producers will have greater flexibility of choosing ingredients for formulating receiving rations. Second, as farmers become responsive with the use of soy hulls, its demand may increase and this could also increase its price. Thus, soy hulls could become a driver of farm-gate soybean prices received by farmers.