

Estimating the Supplement Intake, Hay Replacement Value, and Economics of a Corn Distiller's Grain Lick-Tub Supplement When Fed to Pre- and Post-Calving Beef Cows

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Abstract

This cow (n=108) supplementation study determined cow daily intake of a chemically hardened 28% crude protein (CP) distiller's dried grain with solubles (DDGS) lick-tub supplement, which subsequently replaced alfalfa-bromegrass hay based on cow daily intake. For the 90-day study, a hay control group (CON) was compared to: 1) a pre-calving treatment (PRE-SUP) that consumed supplement for the entire study, and 2) a post-calving treatment (POST-SUP) that began receiving supplement after calving. Compared to the CON and POST-SUP treatments, PRE-SUP treatment cows consumed the least hay dry matter (DM) ($P<0.01$) and a greater amount of total supplement ($P>0.05$). Compared to the PRE-SUP treatment, POST-SUP cows consumed 41.9% more lick-tub supplement per day ($P<0.05$) after calving. Cow starting, calving, and ending body weight (BW), and cow calving and ending body condition score (BCS) did not differ ($P>0.10$). Post-calving cow BW gain and average daily gain (ADG) did not differ ($P>0.10$). Ending rib fat thickness was greater for supplemented treatments compared to CON. Breeding cycle and total percent pregnant did not differ ($P>0.10$). Supplementation cost was determined when fed pre- and post-calving. PRE-SUP was similar to POST-SUP, but PRE-SUP had more cost.

Key Words: Beef cows, distiller's dried grain with solubles, economics, hay replacement, lick-tub supplement intake, supplementation timing