



EXTENSION

BEEF CATTLE RESEARCH UPDATE

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Effects of Monensin on Intake, Growth Performance, and Health of Newly-Received Feedlot Calves

The ionophore, monensin, is commonly fed to feedlot cattle to increase feed efficiency typically by decreasing dry matter intake (DMI) when fed at the commonly adopted dose of 30 grams/ton on a dry matter basis. During the receiving period, DMI is often suppressed due to management stressors (weaning, marketing, and road transportation). Thus, feeding monensin to light-weight feedlot calves might be detrimental to DMI and consequently to growth performance. For this reason, an experiment was conducted at the Clayton, NM livestock Research Center to evaluate the effects of feeding monensin to newly-received feedlot calves.¹ In this study, 380 crossbred beef steers (initial body weight = 509 lb and ~ 8 months of age) were sourced from local auctions in Delhi, LA and transported approximately 16 hours to Clayton.

Upon arrival, the steers were processed, blocked by off-truck shrunk body weight, randomly assigned to 20 pens (19 hd/pen), and pens were then randomly assigned to one of two dietary treatments (10 pens/treatment): controls (no feed additive) or monensin at 170 mg/head/day (Rumensin 90; Elanco Animal Health, Greenfield, IN). The basal diet consisted of a complete starter feed composed predominantly of wet corn gluten feed (RAMP; Cargill Sweet Bran, Dalhart, TX). The experiment was 56 days in length.

These researchers reported that feeding monensin did not affect feed intake ($P = 0.58$) compared with controls. However, average daily gain was increased by 12.5% ($P < 0.01$) in steers fed monensin compared to controls. Thus, feed efficiency (gain:feed ratio) increased 10.7% ($P < 0.01$) in steers fed monensin. Feeding monensin tended to increase final body weight 2.9% ($P = 0.07$) compared with controls. Additionally, the treatments did not effect morbidity or mortality rates. In conclusion, feeding monensin at 170 mg/head/day (24 grams/ton of dry matter) increased growth performance of light-weight, newly-received feedlot cattle without influencing DMI or animal health.

¹ Foster, R. C., V. N. Gouvêa, J. A. Proctor, M. M. Smithyman, M. R. Beck, N. S. Long, J. K. Smith and G. C. Duff. 2023. Effects of monensin on Intake, growth performance, and health of newly-received feedlot calves. *J. Anim. Sci.* 101 (Suppl. 1): 77-78 (Abstr.). Available: <https://doi.org/10.1093/jas/skad068.091>.