

ABSTRACT

EFFECTS OF ORAL CALCIUM CHLORIDE AND CALCIUM PROPIONATE BOLUSES ON BLOOD CALCIUM IN PERIPARTURIENT DAIRY COWS

Due to ease of administration, calcium bolus products are gaining interest to combat milk fever. Fourteen (8 Holstein and 6 Jersey) multiparous pregnant cows were paired by breed and parity and randomly assigned to receive a bolus containing calcium chloride and calcium sulfate (7 cows) or calcium chloride and calcium propionate (7 cows). A single bolus was administered at calving and 12 h later. Blood samples were obtained at calving and 1, 2, 4, 6, 12, 18, and 24 h post-calving and analyzed for serum Ca. No significant difference existed between treatments. Calcium chloride and calcium propionate cows tended to exhibit higher serum Ca at hour 2 and 24 after treatment. Total 24 h milk Ca was also calculated. No correlation existed between milk and blood Ca levels. Future research on calcium bolus products in relation to Ca source, source solubility, and dose may be warranted.

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December 2008