

## عنوان مقاله:

Insulin-Like Growth Factor I and II mRNA Levels in Rumen Wall of Calves Fed with Different Physical Forms of Diets

## محل انتشار:

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## خلاصه مقاله:

This study was designed to investigate the effects of physical forms and hay contents of diets on gene expression of insulin-like growth factor (IGF) I and II in rumen epithelium of Holstein calves. Twelve male calves were assigned to ۴ treatments: ground (GR), texturized (TX), pellet (PL), and ground+۱۰% forage (GF). Calves were weaned on day ۵۰ of age and then slaughtered on day ۷۰ after birth. Rumen epithelial tissue samples were immediately collected for quantification of mRNA abundance. Results indicated that only IGF I expression was influenced by the dietary treatments. A significant ( $p<۰.۰۵$ ) correlation between IGF I expression and each of histological parameters denoted as length of rumen villi and diameter of keratinocyte layer was observed. No significant correlation between IGF II expression and rumen histological parameters was found ( $p>۰.۰۵$ ). Regarding the results, higher IGF I expression in PL and TX treatments despite the low growth rate might be due to the challenging condition of developing rumen in calves. In fact, the rumen tissue attempted to maintain rumen pH at least by induction of a higher IGF I expression

## کلمات کلیدی:

IGF I, IGF II, Keratinocyte layer, Rumen villi, Holstein calves, لایه کراتینوسایت, پرز, گوساله های هلشتاین

## لینک ثابت مقاله در پایگاه سیویلیکا:

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