

Influence of corn stover on the growth and blood parameters of Awassi lambs fed a concentrate diet

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ABSTRACT

This study was conducted to evaluate the effects of substituting wheat straw with corn stover (CS) on the growth performance and blood parameters of lambs fed on a concentrate diet. Male lambs were split into two groups, with 16 lambs in each. Following a 7-days adaptation period, one group received a diet containing 0 g/kg CS (CS0) and the other group received 100 g/kg CS (CS100) for 56 days. The following growth-related parameters were evaluated: feed intake, digestibility, N balance, total weight gain, average daily gain and blood parameters. The production cost was also assessed. Dry matter (DM) and crude protein (CP) intake increased ($p < .05$) for lambs fed the CS100 diet. Lambs introduced to the CS100 diet were better able to digest ($p < .05$) DM, CP, neutral detergent fibre, and acid detergent fibre. N intake and retention improved, while N lost in faeces tended to increase ($p = .08$) in lambs fed the CS100 diet. Average daily weight gain was greater ($p < .03$), and cost of gain was lower ($p < .001$) for lambs fed the CS100 diet. Blood glucose increased while creatinine was reduced ($p < .05$) for lambs fed the CS100 diet. These results indicate that feeding lambs the CS100 diet is efficient and would increase profitability. In conclusion, feeding corn stover had a positive impact on growth rate, reduced production costs, and had no negative effect on health. Therefore, we recommend that lambs should be fed diets that include CS100