DIMINUTION OF AFLATOXIN AND OCHRATOXIN TOXICITY TO GROWING LAMBS PERFORMANCE BY SOME DIETARY SUPPLEMENTATIONS.

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SUMMARY

Thirty two Rahmany male lambs averaged 5 - 6 months old and 22.13 kg live body weights (LBW) were used in this study which lasted for 120 days. Their diet was found naturally contaminated. Analysis found that concentrate feed mixture (CFM) contained 163.24 µg /kg DM aflatoxin B1(AFB1) and 371.08 µg/kg DM Ochratoxin A (OA), while clover hay (CH) had 26.2 µg AFB1/kg DM and free of OA. The study aimed to examine the possibility to modify their toxic effect by supplementing contaminated ration (60% CFM and 40% CH) as control group (R-1), or with medicinal herbs mixture at rate 0.2% (R-2), Dtox (anti-toxin compound) at rate 0.2% (R-3) or raw Bentonite at rate 2% (R-4). Each of the four groups was 8 lambs.

Supplemented ration with Detox or Bentonite (R3 & R4) increased significantly (P<0.05) the digestibility of DM more than Medicinal herbs mixture or control group (R2 & R1). Feed conversion ratio and economical efficiency decreased significantly (P<0.01) by feeding lambs toxificated ration (R1). Feeding lambs the control contaminated ration (CR) decreased significantly (P<0.05) concentrations of serum total protein, albumin, globulin and amino-transaminase enzymes, while increased significantly (P<0.05) serum urea-nitrogen and creatinine concentrations comparable to the three treated rations.

It is concluded that adding 0.2% medicinal herbs mixture, was superior in detoxification than adding Detox or Bentonite to the contaminated rations of growing sheep. All could improve digestibility coefficients, average daily gain and both feed and economical efficiencies. It could also increased excretion of AFB1 and OA in feces.

Keywords: *Aflatoxin, Medicinal herbs, Detox, Bentonite clay, sheep, feed contamination, digestibility, detoxification.*