

Effect of feeding raw and processed Meskit (*Prosopis juliflora*) pods on serum biochemistry and histopathology of the liver and kidney of Omani sheep

ABSTRACT

An experiment was conducted to study the effects of incorporating raw or processed Meskit pods on histopathology of kidney and liver of sheep. Twenty-four Omani sheep were fed one of four diets: Rhodes grass hay (RGH) plus commercial concentrate (CC); RGH plus raw Meskit pods based diet (RMP); RGH plus roasted Meskit pods based diet (ROMP); RGH plus soaked Meskit pods based diet (SMP) for 84 days. Histological and serum biochemical analyses were used to assess sheep health. Animals were slaughtered and kidney and liver tissue samples were collected. The microscopic results showed that, incorporating raw, roasted or soaked pods to level of 50% of formulated rations resulted in no histological changes in kidney and liver tissues and most serum biochemical values were similar among the treatments. In general, feeding formulated rations based on raw or processed Meskit pods did not cause histological changes in kidneys or livers of Omani sheep even at high intake.

Keyword: Histopathology; Meskit pods; Omani sheep; *Prosopis juliflora*; Serum biochemistry