Investigation the effect of albizia (siris) and leocaena (subabul) plants on digestibility, rumen microbial fermentation and serum parameters in one- humped camel

Ansari, Kh.1; Mohammadabadi, T.2 and Sari, M.2

Received: 24.09.2017 Accepted: 03.06.2018

Abstract
This experiment was conducted to investigate the effect of albizia (siris) and leocaena (subabul) plants on digestibility, microbial fermentation of rumen and blood metabolites in one-humped camel. In the first stage, the best desirable diet among the control diets containing alfalfa and bagasse, diet containing siris leaves and bagasse, siris pod and bagasse, subabul leaves and bagasse and subabul pod and bagasse instead of alfalfa, were selected by in vitro methods. The results of this stage showed that the best fermentation, gas production and digestibility was for a diet containing the siris leaf and bagasse. In the second stage, the best desirable diet (containing 60:40 bagasse and siris leaf) and control diet were used in feeding 4 one-humped camels (with 5 years age and average weight 300±25 kg) for 1 month (two camels per each diet). Feed intake, digestibility of nutrients, ruminal fermentation parameters, rumination behavior and blood metabolites of animals were measured. The obtained data were used to analysis as a completely randomized design. The results showed that dry matter intake, organic matter and the amount of protein intake by camels in control and experimental diets had no significant difference. Dry matter digestibility and neutral detergent fiber and acid detergent fiber in control diets and siris leaves had no significant difference, but digestibility of crude protein of experimental diet were significantly higher than the control diet. Feeding of siris to camels during the experiment had no significant effect on blood glucose, urea nitrogen, cholesterol and triglyceride. According to results, time to eat, rest, rumination and chewing and each one for nutrients were not affected by the experimental diets. Ammonia nitrogen in the control diet was more than a diet containing siris and pH in the diet containing siris leaves was more than the control diet. The result of these experiments showed due to the positive effect of a diet containing siris leaves on digestibility and fermentation, maybe siris leaves can be used as a replacement with 100% alfalfa in one- humped camel's diet.

Key words: Albizia, Leocaena, Digestibility, Serum Parameter, One-humped camel

1- MSc Graduated of Animal Science, Faculty of Animal Science and Food Technology, Agricultural Sciences and Natural Resources University of Khuzestan, Mollasani, Iran
2- Associate Professor, Department of Animal Science, Faculty of Animal Science and Food Technology, Agricultural Sciences and Natural Resources University of Khuzestan, Mollasani, Iran
Corresponding Author: Mohammadabadi, T., E-mail: mohammadabadi@asnrukh.ac.ir

Iranian Veterinary Journal, Summer, 2019, Vol. 15, No. 2: 16-26 (Persian)
References


