EFFECTS OF COCENTRATE RICH OMEGA-3 SUPPLEMENTATION ON THE PROFILE OF CHOLESTEROL, LIPOPROTEIN, AND TRIGLYCERIDE OF BLOOD SERUM IN FILIAL ETAWAH GOAT

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ABSTRACT

Effects of Concentrate rich Omega-3 supplementation on the profile of blood serum cholesterol, high density Lipoprotein (HDL) and Low Density Lipoprotein (LDL), and triglyceride in Filial Etawah goat was investigated. Totally 12 male filial Etawah goat averaging one year of old were used as an experimental animals, and divided into three groups. All groups received grass silage; However, P0 was supplemented by concentrate feed containing 3.9% Omega-3, P1 and P2 receiving concentrate rich Omega-3 about 5.1%, except P2 was added with mineral lick. After treated with different rations for 1 month, the blood were collected from each animal by using vacuum tube without coagulant. The blood were centrifuged with 2500 rpm for 30 min to collect blood serum for analysis blood biochemistry profile, include cholesterol, HDL, LDL, and triglyceride based on Chemistry Analyzer methods. Result research were obtained that blood serum biochemistry analysis in filial Etawah goat showed not significantly (p>0.05) different of cholesterol, HDL, LDL, and triglyceride levels among treatments group, however, these values were in the normal range. In the research, blood serum cholesterol level about 32.05 to 41.18 mg/dl, HDL level about 18.75 to 46 mg/dL, LDL level ranged 12.00 to 12.75 mg/dL, and triglyceride level about 8.50 to 10.80 mg/dL. Conclusion of the research were indicate that supplementation of concentrate feed rich Omega-3 to filial Etawah goat received grass silage with or without mineral lick could maintain the levels of blood serum cholesterol, HDL, LDL, and triglyceride in the normal ranged, that it be supported the long life and healthier of filial Etawah goat.

Key words: Omega-3, blood serum cholesterol, HDL, LDL, triglyceride, goat.

INTRODUCTION

In general, goat livestock in weaning, growth, maturation and production requires sufficient quantity of nutrients and quality. Various efforts to improve performance, production and quality of progeny through the technology of food processing by manipulating the nutritional composition into high value, in terms of nutritional content, function and outcomes. High-quality feed if protein and energy content are high, easy to digest, balanced nutritional ratios. When the dry season, the nutritional conditions contained in the grass or forage are relatively decreased, especially the protein content, otherwise the crude fiber content increases, causing decreased digestibility value, resulting in decreased amount of absorbed nutrients, followed by decreasing performance of livestock production. Probiotics