

The Effect of Substitution Concentrate with Leguminose Indigofera Zollingeriana in Lactation Goat Ration of Dry Matter, Organic Matter Intake, Milk Production, PUFA and CLA Content of Milk

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Abstract : The purpose of this study is to formulated a ration that can increased concentration of bioactive compounds in the form of conjugated linoleic acid (CLA) and polyunsaturated fatty acids acid (PUFA) in milk to produce functional milk that is beneficial for health. It has been proven that forage-based feeds (grass and legumes) are able to increased the presence of polyunsaturated fatty acids and in particular conjugated linoleic acid CLA in milk. Presence of bioactive compounds in product fat of ruminant origin these have generated great interest because they are associated with their potential as anti carcinogenic, anti diabetogenic and stimulant of the immune response. PUFA and CLA and especially n-3 fatty acids, only 4% of the fatty acids present in milk. For that, efforts need to be made to change the fatty acid composition of milk to increase the nutritional value for consumers through increasing the concentration of PUFA and CLA This is very important in the midst of the covid pandemic 19 which is increasing, it is necessary to drink and food that can improve the system body immunity. . The study was conducted in vivo using a randomized block design with 4 treatments and 4 replications. This experiment used 16 heads of 40-55 kg lactating goats. Goat were fed a basal diet containing (dry matter basis) 60% native grass and 40% concentrate. The treatment was A. 60% native grass + 40% concentrate, B. 60% native grass + 30% concentrate + 10% I. zollengeriana C. 60% native grass + 20% concentrate + 20% I. zollengeriana, D, 60% native grass + 10% concentrate + 30% I. zollengeriana. The results showed that the using of I. zollengeriana until 30% in ration gave the same result with using concentrate of nutrient intake, and milk production but increased the CLA dan PUFA content in milk. The results of this study concluded that I. zollengeriana can increased the content of CLA and PUFA at the use of 75% substitute concentrate in the diet of lactating goats.

Keywords : Indigofera zollengeriana, lactation goat, milk production, CLA, PUFA

Conference Title : ICAFST 2021 : International Conference on Animal Feed Science and Technology

Conference Location : Bali, Indonesia

Conference Dates : October 25-26, 2021