

EFFECT OF THE CASTOR BEAN HULLS IN DAIRY GOAT DIETS ON HEMATOLOGIC PROFILE AND HEPATIC AND RENAL FUNCTIONS

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Abstract / Resumo:

The experiment was assigned to evaluate complete hemogram (red and white cells counts) and hepatic and renal functions parameters in dairy goats feeding increasing levels of castor bean hulls. Eight Nubian goat weighting 45 kg were used. The animals were distributed in metabolic cages, using an experimental design in double latin square 4x4. The treatments consisted in three levels of substitution of the hay for castor bean hulls as roughage (33, 66 and 100%) and one control diet (100% of bermudagrass hay), keeping a roughage:concentrate ratio of 50:50. Each experimental period was 21 days, being 14 days of adaptation and seven days to collect data. There were not significative difference among treatments on hematologic parameters. The content of aspartate aminotransferase as well direct and total bilirrubin was higher in animals feeding diets with 100% of replacement of bermudagrass hay by castor bean hulls compared to control diet ( $P < 0.05$ ). Serum urea showed linear positive effect as castor bean hulls increase in diets and was kept above normal levels (8 to 20 mg/dL). Castor bean hulls containing 6% of seeds fragments should be used carefully to dairy goats feeding, repecting limits of 33.0% of replacement of grass hay.