EFFECT OF DIETARY SUGAR BEET PULP AND ENZYMES ON SOME PHYSIOLOGICAL PERFORMANCE OF GROWING RABBITS

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A total number of 36 males, 8 weeks old growing New Zealand White (NZW) rabbits used in this study. Rabbits were randomly distributed into 6 treatments, each one contains 6 males. Three levels of sugar beet pulp (SBP) and two levels of enzymes preparation were used in a 3 x 2 factorial arrangement. Sugar beet pulp were used at levels of 0 (control), 50 and 100 % of the diets. Enzymes preparation was added at 0 and 500 g/ ton of diet. At the end of experimental period blood samples were collected from 3 rabbits of each treated groups were chosen, two blood samples were immediately collected from each rabbit. The first sample was collected in heparinized tube (2.25μ heparin / 5 ml blood) for studying the blood picture. The second sample was collected in non-heparinized tube and centrifuged for 5 minutes at 10000 R.P.M to separate, serum, for studying some blood metabolites parameters. Obtained results showed that, Rabbits fed control diet recorded an increasing (P<0.05) in corpuscular hemoglobin concentration (MCHC) values compared with rabbits fed 100% SBP in their diet. Adding enzyme to rabbit diets reduced (P<0.05) the values of the packed cell volume (PCV) and hemoglobin (HB%) compared to the control diet. The greatest slightly numerically improvement in the values of Red blood cells (RBC’s), white blood cells (WBC’s), PCV, and mean corpuscular hemoglobin (MCH) was for rabbits fed dietary 100%SBP without enzyme addition compared with other dietary treatments. Rabbits fed dietary 100% SBP and incorporated with enzyme recorded the greatest (p<0.05) value of glucose and triglycerides followed by others fed dietary 50% SBP and incorporated with enzyme compared with all dietary contain either SBP or incorporated with or without enzyme (SBP×enzyme). The greatest (P<0.05) enhancement in the values of AST and AST / ALT ratio was recorded for rabbit fed dietary enzyme compared with the control diet.

Keywords: sugar beet pulp, blood parameters, enzymes, growing NZW rabbits