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Heamatological and Biochemical Changes in Cockerels Fed Graded Levels of Wild Sunflower Leaf Meal

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Abstract : The poultry industry in Nigeria has been played by a variety of problems, which include the search for feed ingredients that are not competed for by man. This has resulted in a reduced interest of farmers in the industry leading to a reduction in animal protein availability for human consumption as a consequence of a high cost of production. The incorporation of wild sunflower meal (Tithonia diversfolia, Hemsl A. Gray) (WSF Meal) and some others in poultry diets have been reported to result in compounded feed with nutrient profiles that compare favourable with feeds of conventional feedstuff and reduce feed cost as they reduce competition with humans. A 98-day feeding trial was used to evaluate the effect of Wild sunflower leaf (WSL) at varying levels on the hematology and biochemistry of cockerels. A total of one hundred and twenty(120) cockerel birds were randomly allotted into four experimental diets with three replicates per experimental diet (ten birds per replicate). Wild sunflower leaf was included in four graded levels ; 0, 5, 10, and 15%. Packed cell volume, Red blood cell count, White blood cell count, Hemoglobin count, Lymphocyte count, Neutrophil count, Platelets, Mean Corpuscular Hemoglobin Concentration (MCHC), Mean Corpuscular Hemoglobin (MCH), Aspartate aminotransferase (AST), Glucose, Urea, Chloride, Sodium, and Potassium ion values were significantly different ($p<0.05$) among the treatments. Mean values obtained for Creatinine, Total Protein, Alanine aminotransferase (ALT), Albumin, and Mean Corpuscular Volume (MCV) were not significantly different ($p>0.05$) in all the treatment. WSL could be included up to 15% in the diet of cockerel without any deleterious effect on the birds. Based on the results, up to 15% Wild sunflower meal (WSL) can be included in the diet of cockerel without any adverse effect on the hematology and biochemical indices of birds.

Keywords : biochemical changes, cockerels, hematology, wild sunflower leaf
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