**Effect of Supplementing Dietary Sheath Sunflower on Performance and Carcass Characteristics of Broiler Chicks**

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**Abstract:** This study was carried out to investigate the effect of supplementing dietary sheath sunflower on performance and carcass characteristics of broiler chicks. One hundred and forty four, one-day old unsexed broiler chicks (Ross) were distributed randomly to four treatments (36 birds/ treatments) with three replicates (12 birds/ replicate) in complete randomized design. Four dietary treatments were formulated to meet the nutrient requirements for broiler chicks prepared by supplementing sheath sunflower (SSF) with different levels: 0%, 2%, 4% and 6% represented by A, B, C and D respectively. Diet and water offered *ad-libitum* to chicks. Weekly feed intake (FI) and body weight (BW) were recorded. Feed conversion ratio (FCR), protein intake (PI) and protein efficiency ratio (PER) were determined. The experiment lasted for six weeks. Carcass weight, dressing percentage and some internal organs were determined. The results of the experiment revealed that the diet which contained SSF gave significantly (P≤0.05) highest scores of the performance. Feed intake decreased by increasing level of SSF in the diet. BWG and PI were significantly (P≤0.05) affected by dietary treatments. Birds received diets contained SSF recorded higher weight gain than the control group. Diet B and C showed the best growth rate. FCR and PER were not affected by dietary treatments. Diets contained SSF had significantly (P≤0.05) increased live weight and carcass weight than control group. Dressing percentage and internal organs were not affected (P≥0.05) by dietary treatments. It could be concluded supplementing broilers' diet with Sheath Sunflower had beneficial effects on performance and reduced feed cost.

**Key words**: Broiler, Sheath, Performance, Sun flower, Carcass.