

## REPLACEMENT VALUE OF HIGH FIBRE HULLED SUNFLOWER SEED CAKE FOR SOYBEAN CAKE IN BROILER CHICKEN DIETS

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### ABSTRACT

A total of 180 day-old broiler chicken were used to determine the replacement value of high fibre hulled sunflower seed cake protein (HSFSCP) at 0,25,50 and 75 for soybean cake protein (SBCP) .The diets were isocaloric 2.95 and 2.85 kcal/g metabolisable energy and about 23 and 20% crude protein at the starter and finisher phase respectively. At the starter phase , the highest ( $P<0.05$ ) body weight of 721.75g and protein efficiency ratio (PER) of 1.92 were obtained with 0% HSFSCP which did not differ significantly ( $P<0.05$ ) from values obtained with 25% HSFSCP while poorest body not and PER values of 599.71g and 1.59% respectively were obtained with 75% HSFSCP diet. Carcass characteristics at this phase showed highest ( $P<0.05$ ) dressed percentage of 61.12, back of 1.55 and abdominal fat deposit of 1.09 with 0% HSFSCP and lowest values of 53.64, 4.30 and 0.00 respectively with 50% HSFSCP diet. At the finisher phase highest 3563..1353.13g ( $P<0.05$ ) feed intake was obtained with 0% HSFSCP and lowest value of 3220.50gwith 25% HSFSCP. Best PER value of 1.41 was obtained with 25% HSFSCP while there were no differences among other diets. Highest drumstick value of 4.09 was obtained with 75% HSFSCP and lowest value of 3.83 with birds on 25% HSFSCP. Highest abdominal fat deposit was observed with birds on 0% HSFSCP and lowest value of 0.00 with birds on 75% HSFSCP diets. At the overall (starter and finisher) feed intake, body weight, FCR of birds on 50% HSFSCP did not differ significantly ( $P>0.05$ ) from values obtained with those on 0% HSFSCP. This study suggested that not more than 50% HSFSCP (22% crude fibres could be replaced with soybean cake protein in the diets of broiler chicken.

**Key words.** Broiler, hulled sunflower cake, soybean cake, performance.