



Tropentag, September 17-19, 2018, Ghent

“Global food security and food safety:  
The role of universities”

## Defatted Cashew Kernel Meal as Protein Substitute for Peanut Cake in Broiler Diets

TAIWO AKANDE<sup>1</sup>, FOLUSO GBADAMOSI<sup>2</sup>

<sup>1</sup>*Obafemi Awolowo University, Animal Sciences, Nigeria*

<sup>2</sup>*Obafemi Awolowo University, Animal Sciences,*

### Abstract

This study was carried out to determine the chemical composition of two grades of defatted cashew kernel meal (DCKM) and assess the performance characteristics of broiler chickens fed diets containing two grades of DCKM. The study used 210 day old Arbor Acre broiler chicks which were stabilised on commercial diets of 23 % crude protein (CP) and 2900 <sup>kcal</sup>/kg Metabolizable Energy (ME) for 2 weeks before introduced to experimental diets. Birds were randomly assigned to the seven experimental diets which consisted of a control diet without DCKM, Treatments 2, 3, 4 and 5, 6, 7 consisted of 33.33 %, 66.67 % and 100 % replacement of peanut cake (PNC) with grade I and grade II DCKM respectively arranged in a 2 × 3 (plus 1) factorial experiment. The study lasted for a period of six weeks. Data were collected on body weight gain (BWG), Total feed intake (TFI), Feed conversion ratio (FCR), Feed cost and returns on investment. The results of proximate composition of both grades of DCKM showed no significant difference in Crude Fibre, Crude Protein and Gross Energy contents and are comparable to PNC. The performance traits measured in terms of BWG, TFI and FCR were significantly different ( $p < 0.05$ ) across the treatments with birds on both grades of DCKM showing some superior performance than birds on the control diet, with 17.72 % and 13.35 % higher BWG. Fat deposition was notably ( $p < 0.05$ ) higher in birds fed DCKM. In economic terms, the use of DCKM reduced the heightened cost of production by 9.1 %. It was concluded that grade I DCKM in this study could completely and favourably replace PNC in diets of chicken in terms of higher growth rate, efficiency of feed utilisation and low cost.

**Keywords:** Broilers, cashew kernel meal, peanut cake