

**A2127. ASSESSMENT OF THE EFFECT OF FEEDING PROSOPIS
POD FLOUR BASED RATIONS TO LAYER CHICKENS ON
LAYING AND EGG QUALITY**

**'Wahome, R.G., Onyore, E., Murage, L., Choge, S., Kyuma, R., and
Tendwa, J.**

*Department of Animal Production, University of Nairobi. P.O Box 29053-
00625 NAIROBI*

Corresponding author: rgwahome@uonbi.ac.ke

Abstract

To assess utilization of prosopis based diets in layer chickens, four iso-caloric iso-nitrogenous layer rations were formulated in accordance with KEBS standards, and fed to groups of six layers replicated three times. The treatment diets contained 0% prosopis, 10% prosopis, 20% prosopis and 30% prosopis. The layer chickens were fed over a period of 5weeks. During this time, egg production, external and internal egg quality was monitored. By the end of the experiment the birds fed on 0%, 10% and 20% Prosopis diet had similar egg productivity and egg quality. The birds on the 30% Prosopis diet, had a significantly lower ($P<0.05$) egg production. An important observation is that the birds' egg production improved greatly in the subsequent week for all the diets except 30% Prosopis diet. Yolk weight was almost constant across diets and there was no correlation between egg weight and the type of diet. There was no significant diet effect on both the shell weight and albumen height. However, it was observed that shell quality improved with higher levels of prosopis. Eggs produced from birds fed on 0%, 10%, 20% and the 30% Prosopis diets scored low on the colour chart. Addition of 10%, 20% and 30% Prosopis to the diets diet added colour to the yolk showing that Prosopis has properties that can be exploited to reduce the use of xanthophylls. It was concluded that inclusion of up to 20% prosopis pod flour in layer chickens rations did not only not affect appetite, egg production, egg quality and feed efficiency but also had the potential to reduce xanthophylls use in achieving the deep yolk color usually desired by many consumers of eggs.

Key Words: Prosopis juliflora pods, egg quality, laying rations,