Moringa Oleifera Leaf Meal supplementation on egg quality

Introduction

Poultry products are good sources of high quality protein for most individuals. Eggs are affordable and rearing chicken for those who have backyard gardens is not so demanding. However, the JOOUST surrounding has limited supply of eggs especially the growing population in Bondo Sub County. In an effort to come up with a layers' feed that was economically sustainable for egg production, a study was conducted to incorporate an under exploited tree species *Moringa oleifera* that thrives in Bondo and is rich in crude protein and other minerals and vitamins. Widespread use of *Moleifera* in livestock feed would reduce the competition for omena fish and soya beans between man and livestock as they are usually the key sources of protein in chicken feed.

Category: Student Research/Food Security

Purpose: To improve egg quality and increase profit, through feed cost efficiency.

A study was carried to determine the effect of *Moleifera* leaf meal supplementation on egg laying and weight gain of layer chickens. The effect on egg quality was clear while the other parameters required a longer duration for the experiment to be conclusive. Layers were divided in to three groups and fed on formulated feed as follows: Group 1) with *M old/era* leaf powder as a substitute for fish meal in the feed and Group 2) with *Moleifera* leaf powder as a substitute for soybean meal and the control Group 3) with no *Moleifera* leaf meal in the feed. The findings in a two month experiment were that supplementation with *Moleifera* increased the weight of the egg and the layer chicken. For the exhibition we will show the effect of *Moleifera* on egg quality. Twelve (12) layers will be subjected to the two diets for one month before the show (June, 2017). On display will be the external and internal egg quality traits -egg weight, length, width, shape index, surface area, shell weight, shell thickness, shell ratio, and internal quality traits such as; length, width, height, and weight of albumen and yolk, albumen index, albumen ratio, Haugh unit (H.U.), yolk diameter,yolk index, yolk ratio, and yolk albumen ratio.