



# Nutritive Value of Cashew Apple for Growing Duck

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## Introduction

Cashew apple is a waste product generated from the cashew nut production, after taking out of its value nut. The waste product from processing, after drying, has been fed to rabbit with promising results (Fanimó et al., 2003). Including of alternative feed stuff into the diet contribute to the lower cost for animal production. Therefore, the study was conducted to evaluate the effect of inclusion cashew apple meal on feed intake and animal performance of local ducks.



Cashew fruit (Source: Wikipedia)

## Result

There was no significant difference on dry matter (DM) intake ( $P>0.05$ ). Incorporating 5% of cashew apple in diet seems to be bringing feed intake. The DM intake was 73.65, 80.52, 68.92 and 73.88g/head for T0, T1, T2, and T3 respectively. There was no significant effect on average daily gain ( $p<0.05$ ) However, animals received 5% of CA in the diet tended to have better weight gain. Average daily gain of T0, T1, T2 and T3 were 14.87, 16.94, 14.86 and 15.52g/head. Better feed conversion ratios was found on diet has 10% of CA.

Table1. The animal performance and feed intake of duck with different level of cashew apple inclusion

Parameter	T0	T1	T2	T3	P value
Initial live weight (g/head)	111.95	114.44	114.66	118.68	0.545
Daily feed intake (g DM/head)	73.65	80.52	68.92	73.88	0.210
Average daily gain (g/head)	14.87	16.94	14.86	15.52	0.138
Final live weight (g/head)	944.75	1063.42	946.88	987.88	0.141
Feed conversion ratio	5.95 <sup>a</sup>	5.65 <sup>ab</sup>	4.74 <sup>c</sup>	5.07 <sup>bc</sup>	0.004

Values within row sharing no common superscripts are significantly different ( $P<0.05$ ).

## Materials and Methods

One hundred eighty of one week old ducks (Khaki Campbell) with average initial weight of 114.93g were used. Cashew apple (CA) were dried under the sun, ground, and incorporated to standard grower diet (composed of maize, rice bran, soybean, fish meal, shell, and premix) at three different levels as following:

- T0: control, 0%CA
- T1: 5% CA
- T2: 10% CA
- T3: 15% CA.

Animals in each treatment were kept in three replicates with 15 ducks in each group. All dietary treatment contained crude protein 22% in the first stage (0-6 weeks) and 20% in the second stage (6-8 weeks). Feed and water were freely available. Offered and refusal feed were daily recorded. Animals were weighted every week.

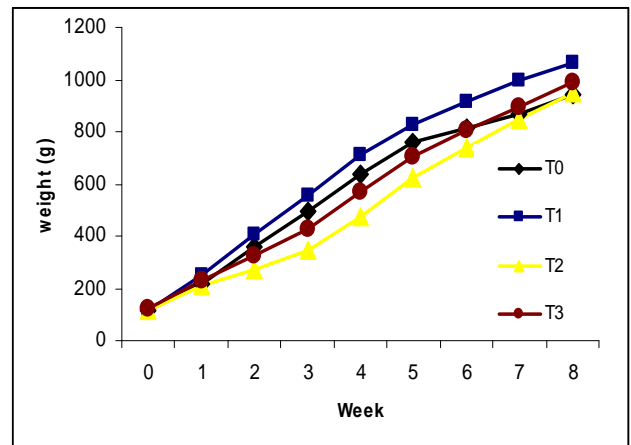


Figure 1. Weekly growth rate of duck express in g/head

## Conclusion

Cashew apple meal can be included till 15% in diet of growing duck without adverse effect on body weight gain. Nevertheless, further study should be conducted to focus on the effect of cashew apple on the digestibility and carcass characteristic.

## References

Fanimó, A.O., Oduguwa, O.O., Alade, A.A., Ogunnaike, T.O. and Adeshinwa, A.K., 2003, Growth performance, nutrient digestibility and carcass characteristic of growing rabbits fed cashew apple waste. LRRD (15) 8.



Experimental pens



Duck being weighed