

B-61: Manioc leaf meal and ipil ipil leaf meal as a substitute for coconut meal in layer's starter and grower ration

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Manioc leaf meal (MLM) and Ipil Ipil leaf meal (ILM) were found to be cheaper and rich sources of protein in the Eastern region of Sri Lanka.

This study examines the feasibility of using manioc leaf meal and Ipil Ipil leaf meal as substitutes for coconut poonac in the poultry ration to reduce the feed cost, and thereby increase the income level.

In this experiment the above mentioned leaf meals were incorporated in starter and grower rations to an amount of 0, 5 and 10 % by weight as a substitute for coconut poonac.

This study was conducted at the Livestock Farm, Eastern University. One hundred day old white leghorn layer chicks were divided into 10 groups of equal mean weight. Each treatment was allocated to 2 groups. The experiment consisted of 5 treatments including a control treatment.

Treatments were (a) 0% MLM and 0% ILM (control) (b) 5% MLM, (c) 10% MLM, (d) 5% ILM, and (e) 10% ILM.

These rations were balanced with respect of all nutrients required for starter and grower rations according to the recommendations of National Research Council. Feeding of test diets began after a preparatory period of 3 weeks during which time the chicks were fed a commercial chicks starter ration. Each group of chicks was weighed separately at the commencement of the experiment and thereafter at weekly intervals. The feed consumption of each group was also measured at weekly intervals. Experiment was based on The Complete Randomized Design with 5 treatments. The data was analysed by using the general linear procedure of SAS (1985). The treatment effects were found using DMRT.

The significant ($p=0.05$) increase in body weight gain of 48.16, 52.22 and 50.92 g was observed for 5 % MLM, 10 % MLM and 5 % ILM treatments respectively. Though highest body weight gain was observed with 10 % MLM treatment, this difference in body weight gain was not significant among the other 2 treatments (5% MLM and 5% ILM.)

10% MLM treatment showed a significantly ($p=0.05$) low average feed consumption (337.51) compared to the other treatments. (Control = 370.9, 5% MLM = 369.29, 5% ILM = 345.42, 10% ILM = 353.84).

A significantly ($p = 0.05$) better feed conversion efficiency was noticed for treatments 10% MLM (7.25) and 5% ILM leaf meal (7.36) treatments. The difference between these 2 treatments was not significant.

All the treatments except 5% MLM and 10% ILM were significantly ($p = 0.05$) superior to control in promoting feed intake, weight gain and feed conversion efficiency.

This study reveals that 10% MLM and 5% ILM can be used as a substitute for coconut poonac without depressing the performance of starter and grower White Leghorn chicks. From the economic point of view, it is possible to use a 10% MLM as a substitute for coconut poonac, due to its low unit price.