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**Evaluation of copra meal in corn-animal protein-based diets and enzyme for egg-type birds: Effects on growth performance, egg production and fatty acid profile****Ashika Devi**

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A study investigated the effect of enzyme supplementation of copra meal in corn-animal protein-based diets on pullet growth performance, egg production and fatty acid composition in laying hens. A total of 144, 57 day-old and 20 week-old Shaver Brown pullets were assigned to 8 diets, 2 controls (no copra meal) with and without enzyme and 6 diets containing copra meal at 150, 300 and 450 g/kg with and without enzyme. The experiment was laid as a factorial arrangement (4 copra meal x 2 enzyme) in completely randomised design with 3 replicates of 6 birds each per cage for pullet and laying hens. Pullet results showed interaction of copra meal and enzyme reduced feed intake on control, 150 and 450 g/kg diets in pullets ( $P < 0.05$ ). In the main effects, weight gain was reduced on 300 g/kg copra meal diet ( $P < 0.05$ ). Enzyme supplementation had no effect on growth parameters of pullets ( $P > 0.05$ ). Laying hens results showed significant interaction effects ( $P < 0.05$ ) on feed intake and feed conversion ratio but other performance parameters were unaffected by the interaction ( $P > 0.05$ ). Monounsaturated fatty acid of the egg increased on all copra meal diets, Saturated fatty acids increased on 450 g/kg copra meal and enzyme supplementation reduced this ( $P < 0.05$ ) but interaction had no effect on poly-unsaturated fatty acids ( $P > 0.05$ ). In the main effects, higher egg shape index and deeper yolk colour were observed on 450 g/kg copra meal diet ( $P < 0.05$ ). Inclusion of copra meal at 450 g/kg increased saturated and monounsaturated fatty acid of the egg ( $P < 0.05$ ) but copra meal level had no effect on polyunsaturated fatty acid ( $P > 0.05$ ). Enzyme supplementation had no effect on egg parameters, reduced saturated fatty acid, increased monounsaturated fatty acid ( $P < 0.05$ ) without affecting polyunsaturated fatty acid ( $P > 0.05$ ). In corn-animal protein-based diets, copra meal can be included in pullet and laying hens diets at 450 g/kg without compromising pullet growth performance, egg production and quality.

**Recent Publications**

1. Devi, A., Diarra, S.S., 2017. Influence of dietary protein source and utilisation of copra meal in finishing broiler chicken. *Indian J. Anim. Nutr.* 34(2):193-200.
2. Devi, A., Diarra, S.S., Mael, S., 2019. Challenzyme supplementation of high expeller copra meal in corn-animal protein diets for broilers: growth performance, nutrient digestibility and carcass traits. *Indian J. Anim. Nutr.* 36(2):187-197 <http://doi10.5958/2231-6744.2019.00031.8>
3. Sundu, B., Kumar, A., Dingle, J., 2009. Feeding value of copra meal for Broilers. *World Poult. Sci.* 65:481-491.

**Biography**

Ashika Devi has her expertise in the field of animal Science specialized in Poultry Nutrition and feed formulation for improved poultry health and wellbeing. She has 14 years teaching experience in education institution, has 13 research publications and graduated with PhD degree in September 2020. Her area of specialization in nutrition research creates new pathways to reduce feed cost, using alternative feed resources for improved nutrition and healthier poultry products. Nutrition research information is vital to all stakeholders, especially farmers and feed producers of developing countries who aspire lower cost of production for poultry feeding.

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