

# CRUDE RICE BRAN OIL IN BROILER DIET

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The production of rice bran oil in southern states of India is 3.5 lakh metric tonnes / annum as edible oil and 1.3 metric tonnes / annum as inedible oil (Sea Millennium Hand Book, 2002). The cost of crude rice bran oil is very less when compared to other vegetable oils. So, it can be used in poultry feed formulation to reduce the cost of production. Hence, the present study was planned to determine the return over feed cost of broilers by feeding different levels of crude rice bran oil in the diet.

Two hundred and sixteen, commercial, straight run day-old Vencobb broiler chicks were randomly grouped into six treatments with three replicates of twelve chicks each. Six experimental rations were prepared as per BIS Standards by including 0 per cent ( $T_1$ ), 1 per cent ( $T_2$ ), 2 per cent ( $T_3$ ), 3 per cent ( $T_4$ ), 4 per cent ( $T_5$ ) and 5 per cent ( $T_6$ ) crude rice bran oil on isocaloric and isonitrogenous basis and fed to the experimental birds kept in cages up to seven weeks of age. Birds were vaccinated against Marek's disease, Ranikhet disease and Infectious bursal disease. Body weight gain, feed consumption and mortality were recorded at every week individually. Return over feed cost of broilers reared under different inclusion levels of crude rice bran oil, was worked out by using the prevailing market rates.

## Body weight gain

The crude rice bran oil is efficiently utilized by the broilers when it was included even up to 5

per cent in their diet. On the contrary, Murugesan (1997) observed a significant ( $P < 0.05$ ) increase in weight gain (1352 g) in 2 per cent Acidulated Rice bran oil Soapstock (ARS) fed group compared to that of control (1230.84 g) group. Similarly, Purushothaman *et al.* (2000) reported that the body weight gain in starter phase was significantly high in rice bran oil fed group than the control group and 1 per cent palm oil fed group, but no significant difference was observed among the treatments in body weight gain in finisher phase.

## Feed consumption and feed conversion ratio (FCR)

The feed conversion ratio was superior in  $T_4$  compared to all other treatment groups. On the contrary, Purushothaman *et al.* (2005) stated that during finisher phase (4-6 weeks) the feed consumption in the rice bran oil and tallow fed groups were significantly higher than control group.

## Return over feed cost

Crude rice bran oil included in broiler diet (Rs.23/kg) had significant difference on return over feed cost between treatment groups except at second week of age. The mean return over feed cost of  $T_2$  and  $T_3$  were significantly ( $P < 0.01$ ) lower than control group at second week of age. But, at seventh

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week of age T<sub>4</sub> had numerically higher return over feed cost when compared to other treatment groups, which indicates that inclusion of crude rice bran oil up to 3 per cent in broiler feed improved growth rate with better feed conversion. But, Purushothaman *et al.* (2005) who observed that the cost of feed to produce one kg of live body weight was lowest in 1 per cent starter and 4 per cent finisher rice bran oil supplemented groups. Based upon this study, it can be concluded that crude rice bran oil can be included beneficially up to 3 per cent in the broiler diet to reduce the cost of production.

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