

# MPOB-HIE AS ALTERNATIVE TO CRUDE PALM OIL IN TOTAL MIXED RATION OF BROILER CHICKEN

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**M**POB-HIE is designed as a high fat energy formulation from refined palm oil products. This fat is specially made to provide energy to support efficient growth of starter and finisher broiler chicken. MPOB-HIE is scientifically designed and formulated to replace crude palm oil (CPO) in the manufacture of total mixed ration (TMR) of broiler starter and broiler finisher.

MPOB-HIE is formulated with 100% Malaysian refined bleached and deodorized (RBD) palm products. As such, price competitiveness is dependent on the current market price for CPO. However, the price of MPOB-HIE raw materials is still cheaper than any other RBD palm products.

The advantages of using MPOB-HIE in formulating TMR of broiler chicken are:

- adequate supply and availability throughout the year and can be delivered on *just in time* (JIT) basis within Malaysia;
- less expensive than CPO;
- the feed is not oily and forms excellent pellets;
- very palatable feed and readily consumed by young and old birds;
- rich in natural vitamin E;
- free from pathogenic and spoilage microbes;
- *halal* product derived from Malaysian palm oil and produced locally; and
- MPOB-HIE is superior to CPO and it is technically feasible to be added at a higher level than CPO; up to 8% as added fat in TMR.

MPOB-HIE is expertly manufactured using the latest available scientific know-how and technology in the processing of oils and fats. Comparative data on growth performance of broilers fed MPOB-HIE formulation and commercial feed are shown in *Figures 1 and 2* respectively.

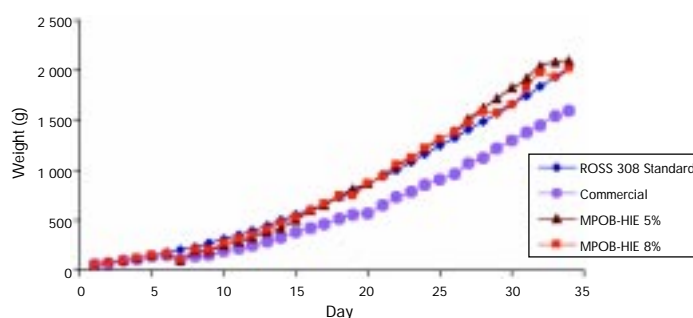


Figure 1. Growth performance of male chicken from day 1 to day 35.

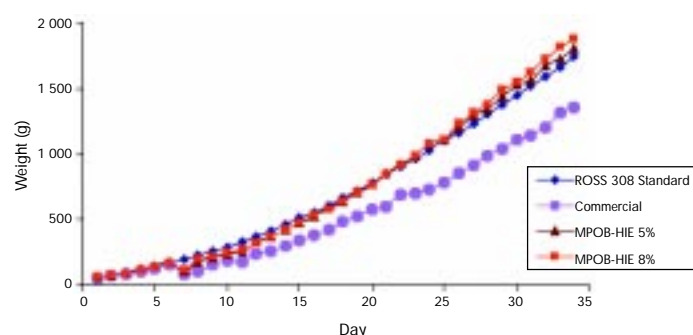


Figure 2. Growth performance of female chicken from day 1 to day 35.

Growth performance in both male and female broilers from day 1 to day 35 was significantly superior for MPOB-HIE 5% and MPOB-HIE 8% compared to the control diet. The growth recorded on MPOB-HIE 5% and MPOB-HIE 8% was in fact comparable to that of ROSS 308 Standard.

Feed conversion ratio (FCR) of the group that was fed TMR containing MPOB-HIE was superior to commercial TMR. Male broilers tend to have better FCR compared to females, especially from day 1 through to day 21 (*Figure 3*).

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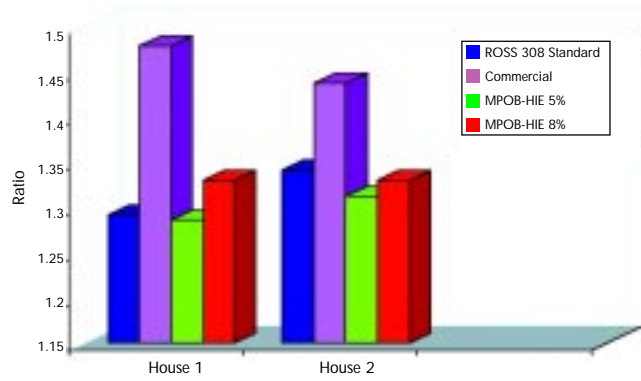


Figure 3. Feed conversion ratio (FCR) for male (House 1) and female (House 2) on day 21.

FCR was highest in chicken fed MPOB-HIE 5% followed by MPOB-HIE 8% for starter feed.

FCR of MPOB-HIE TMR for finisher from day 1 through to day 35 is presented in Figure 4. The TMR feed 5% MPOB-HIE showed the best FCR among all the experimental groups tested.

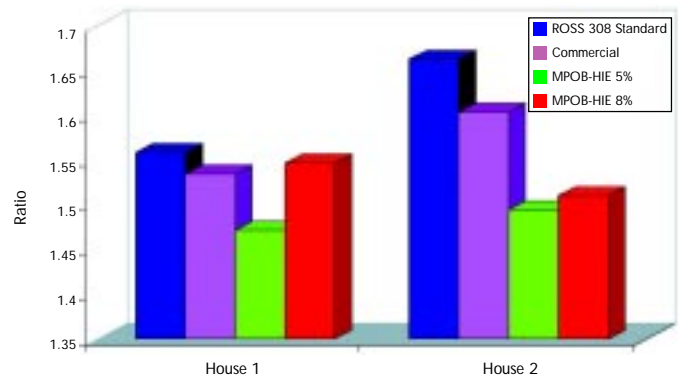


Figure 4. Feed conversion ratio (FCR) value for male (House 1) and female (House 2) chicken on day 35.

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