

**PRODUCTION PERFORMANCE BROILER HAS  
BEEN GIVEN THE CONCENTRATE MIXTURE OF  
KOHAY AND BRAN FERMENTED  
*Rhizopus oligosporus***

**ABSTRACT**

Increase the need for animal protein in society encourage a broiler farmer a broiler to continue to grow. The development of broiler is inseparable from the success rate in its management. Success in the business of broiler farms are affected by factors of feed, breed and management. Feed is largest part of expenditure in business broiler where maintenance expenses incurred by 60-70 % of production costs. The amount of feed production in a broiler caused by high price of raw fodder, because most of the feed ingredients available in the country was fed from the feed raw material imports. Alternative efforts in broiler production costs are utilising waste or sewage farm laying hens as raw feed. Waste farm hens are in focus is *KOHAY* or manure laying hens. Utilization of *KOHAY* require biotechnology applications that approach with the aid of Yeast fermentation of *Rhizopus oligosporus*.

The research objective is harness of livestock waste that can cause air pollution and health problems with efforts to improve the quality of nutrition and high value digestibility of *KOHAY* by fermentation. Fermented products applied as raw materials for fodder broiler so as to produce broiler having the appearance of production, the quality of carcass, and proper cholesterol levels.

Research carried out by the experimental methods. The first study is based on Completely Randomized Design (CRD) 3x3 factorial. The first factor ( $C_1$ ) is the concentrate mixture of *KOHAY* and bran, namely: a combination is 90% *KOHAY* with 10% bran, ( $C_2$ ) 80% *KOHAY* with 20% bran, and ( $C_3$ ) 70% *KOHAY* with 30% bran. The second factor is the dosage inokolum *R. oligosporus*, namely: ( $D_1$ ) 0,5% inokolum *R. oligosporus*, ( $D_2$ ) 0,6% inokolum *R. oligosporus*, and ( $D_3$ ) 0,7% inokolum *R. oligosporus*. Variables research include crude protein, crude fiber, and crude fat. The second study tested the energy metabolism and protein digestibility of *KOHAY*. The third study conducted by Completely Randomized Design (CRD) with five treatments the concentrate mixture of *KOHAY* and bran fermentation products, namely 0%, 5%, 10%, 15 %, and 20 %. Variables are measured include the consumption of rations, added weight loss, conversion ration, the percentage of carcass, abdominal fat percentage, and cholesterol.

The results of the research showed that the increased nutrient value than the original material. The first stage of research is the concentrate mixture of *KOHAY* 90% and 10% bran fermented by *R. oligosporus* inoculum 0,6% ( $C_1D_6$ ) showed

that increased 34,43% crude protein, crude fiber decreased 10,99%, and crude fat decreased 2,71%. The second stage study showed that of energy metabolism increased 72,02 kcal/kg and increased protein digestibility of 72,12%. The three stage study showed that the use of fermented products 10% to 15% in the composition of broilers rations. Increase consumption of ration 2886,16 g and 2938,09 g; extra weight body 1789,70 g and 1768,30 g; the conversion of rations 1.61 and 1,66; the percentage of carcass 71,81% and 70,16%; the percentage of abdominal fat 1,11% and 0,90%; cholesterol meat breast 33,02 mg/100g and 34,63 mg/100g.

Research conclusions the overall shows that the concentrate mixture of *KOHAY* of 90% and 10% bran by *R.oligosporus* inoculum 0,6% (C1D6) contribute positively to increased nutrient and digestibility better from the original material. The application of 10% to 15% *KOHAY* fermentation products in the ration composition and performance of broilers produce physical qualities are optimal broiler carcass.

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Keywords : *Production Performance, Fermentation, KOHAY, Bran, Broiler.*