

**PRODUKSI TELUR ITIK FUNGSIONAL KAYA ASAM LEMAK OMEGA 3 DAN OMEGA 6 BERIMBANG, VITAMIN A DAN RENDAH KOLESTEROL MELALUI SUPLEMNTASI MINYAK IKAN, MINYAK SAWIT DAN ZINK ORGANIK DALAM RANSUM**

(Production of Functional Duck Egg Rich Omega-3 and Omega -6 Fatty Acid Balanced, Vitamin A and Low Cholesterol with Supplementation of Fish Oil, Palm Oil and Zink Organic in Ration)

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**ABSTRAK**

Tujuan penelitian ini adalah untuk menghasilkan telur itik kaya asam lemak  $\omega$ -3 dan  $\omega$ -6 dengan komposisi yang seimbang, meningkatkan produksi telur dan kualitas telur, menurunkan kadar kolesterol telur itik dan meningkatkan kandungan vitamin A telur itik. Penelitian dilakukan selama 9 minggu menggunakan 90 ekor itik magelang berumur 21 minggu. Perlakuan yang diberikan adalah: R0 = ransum tanpa menggunakan minyak sawit, minyak ikan, atau Zn organik denganimbangan  $\omega$ -3 :  $\omega$ -6 = 1 : 5; R1 = ransum dengan imbalan  $\omega$ -3 :  $\omega$ -6 = 1 : 1,5 + 200 ppm Zn organic; R2 = ransum dengan imbalan  $\omega$ -3 :  $\omega$ -6 = 1 : 3 + 200 ppm Zn organic; R3 = ransum dengan imbalan  $\omega$ -3 :  $\omega$ -6 = 1 : 4,6 + 200 ppm Zn organic; R4 = ransum dengan imbalan  $\omega$ -3 :  $\omega$ -6 = 1 : 6 + 200 ppm Zn organic; dan R5 = ransum dengan imbalan  $\omega$ -3 :  $\omega$ -6 = 1 : 7,5+ 200 ppm Zn organik. Penggunaan asam lemak  $\omega$ -3 dan  $\omega$ -6 dengan imbalan 1 : 4,6 ditambah Zn organik 200 ppm (R3) menghasilkan performa produksi yang baik, menurunkan kolesterol dalam kuning telur, meningkatkan kandungan vitamin A dan menghasilkan imbalan  $\omega$ -3 :  $\omega$ -6 terbaik sebesar 1: 5,29.

Kata kunci: Asam lemak  $\omega$ -3 dan  $\omega$ -6, itik Magelang, Zn organik.

**ABSTRACT**

The objective of this study were to yield duck eggs rich in  $\omega$  3 and  $\omega$  6 in a balance ratio, low cholesterol, high vitamin A, and to increase duck egg production. A total of 90 Magelang ducks of 21 weeks old were randomly divided into 18 experimental units and reared during 9 weeks. The diet treatments were: R0 = diet without palm oil, fish oil or organic Zn with the ratio of  $\omega$ -3 :  $\omega$ -6 was 1: 5; R1= diet with the ratio of  $\omega$ -3 :  $\omega$ -6 was 1: 1.5 + 200 ppm organic Zn; R2 = diet with the ratio of  $\omega$ -3 :  $\omega$ -6 was 1: 3 + 200 ppm organic Zn; R3 = diet with the ratio of  $\omega$ -3 :  $\omega$ -6 was 1: 4.5 + 200 ppm organic Zn; R4 = diet with the ratio of  $\omega$ -3 :  $\omega$ -6 was 1: 6 + 200 ppm organic Zn; and R5 = diet with the ratio of  $\omega$ -3 :  $\omega$ -6 was 1 : 7.5 + 200 ppm organic Zn. The results of this study was that feeding diet contained  $\omega$ -3 and  $\omega$ -6 fatty acid with the ratio of 1: 4.6 +200 ppm organic Zn produced the duck eggs with the best ratio of  $\omega$ -3 :  $\omega$  -6 in the yolk, high in vitamin A, and low in yolk cholesterol. This treatment also increased duck egg production.

Keywords:  $\omega$ -3 and  $\omega$ -6 fatty acids, Magelang duck, organic Zn.