## Lipid Biosynthesis in Blood and Egg of Local Hen Fed with Feed Containing Menhaden Fish Oil as Source of Omega-3 Fatty Acids

Title	Lipid Biosynthesis in Blood and Egg of Local Hen Fed with Feed Containing Menhaden Fish Oil as Source of Omega-3 Fatty Acids
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Abstract	Abstract. Menhaden fish oil is commonly used as chicken feed mixture as cheap omega-3 source, plenty and available over the year. Chicken feed containing menhaden fish oil can affect digestion, metabolism and production of meat and egg. The research aimed to evaluate lipid biosynthesis on blood and egg yolk of local chicken fed with feed containing menhaden fish oil as an omega-3 source. The research used 60 hens placed in individual battery cages with four treatments and five repetitions. The treatments were R0 = control/without menhaden fish oil as omega-3 source; R1 = with 2.5%; R2= with 5.0% and R3 = with 7.5% menhaden fish oils respectively. Data analysis used analysis of variance continued with Duncan $\tilde{A}f A \notin \tilde{A}, A \in \tilde{A}, A^{TM}$ s test. The result of the researth showed that the treatments did not significantly affect lipid consumption, blood lipid content, blood and yolk cholesterols. However, the treatment significantly affected yolk lipid. The used of menhaden fish oil in feed as an omega-3 source was accumulated in yolk eggs as followed: C18:3 from 0.17% (R0) to 0.29% (R2); DHA (C22:6) from 0.87% (R0) to 3.12% (R3); EPA C18:2 from 1.05% (R0) to 1.85% (R2); EPA C22:4 from 0.77% (R0) to 0.88% (R2) respectively. It could be concluded that enhancement of omega-3 content in egg could be achieved through addition of omega-3 sources in feed.Keywords: egg quality, lipid profile, menhaden fish oilAnimal Production 14(1):6-12, January 2012
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