

## The decrease of cholesterol levels on broiler meat by the addition of crude fish oil

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### ABSTRACT

This research was to know the potential of crude fish oil to decreased total cholesterol levels in broiler meat. Twenty broiler divided in four treatment groups and five replications, P0: standart feed without crude fish oil as control, P1: standard feed + 1% crude fish oil, P2: standard feed + 2% crude fish oil, P3: standard feed + 4% crude fish oil. The results of this research showed significance difference ( $P < 0.05$ ) among control and all treatments. The addition of fish oil on standard feed could decrease in cholesterol levels. In control showed the highest total cholesterol levels of broiler meat (83.844 mg/100 g) and the lowest of total cholesterol levels showed by the addition of 2% and 4% fish oil (68.281 mg/100 g and 68.278 mg/100 g) respectively. The conclusion of this research that addition of 2% crude fish oil could decrease total cholesterol levels in broiler meat from 83.844 mg/100 g to be 68.281 mg /100 g.

**Key words** : cholesterol level, crude fish oil, broiler meat

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### PENDAHULUAN

Minyak ikan yang sudah mengalami proses pemurnian maupun yang masih belum mengalami proses pemurnian mengandung asam lemak omega-3 yang berperan untuk pencegahan penyakit jantung melalui penurunan resiko trombosis dan aterosklerosis akibat perubahan profil lipid plasma dan sintesis eikosanoid. Minyak ikan berpotensi positif baik terhadap efek fisiologis atau efek metabolisme karena minyak ikan merupakan *long chain-polyunsaturated fatty acid* (LC-PUFA) yang berperan positif terhadap parameter kinerja broiler. Asam lemak omega-3 berperan pada kesehatan manusia dan hewan (Pike, 1999). Selain trigliserida minyak ikan kasar mengandung komponen lain seperti fosfolipid, sterol, pigmen, hidrokarbon dan vitamin. Penggunaan minyak ikan pada formula pakan unggas dapat memberi keuntungan secara ekonomis yaitu dapat memenuhi kebutuhan energi serta memperbaiki komposisi asam lemak (Newman, 2002).

Penurunan kadar plasma trigliserida (TG) dan kolesterol pada broiler dapat terjadi jika ayam mengkonsumsi pakan yang mengandung *polyunsaturated fatty acid* (PUFA) bila dibandingkan dengan ayam yang mengkonsumsi asam lemak jenuh (Newman, 2002). Asam lemak omega-3 berperan menekan sintesis trigliserida dan apolipoprotein B, meningkatkan penurunan *very low*