

## Investigating the effects of soy lecithin on growth parameters and biochemical parameters in Asian seabass (*Lates calcarifer*)

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### Abstract

Effects of dietary soy lecithin on the growth performance and serum biochemistry parameters of Asian Sea bass *Lates calcarifer* with initial fish weight of  $50.36 \pm 7.69$  g were investigated in a 60 days experiment. 6 diets in the present study in the almost isoproteic and isoenergetic (45% protein and 15 kJ/g) were made from a combination of 2 oil sources including fish oil and a mixture of vegetable oils with three levels of zero, 2 and 4% soy lecithin. For this purpose, experimental diets were formulated in the form of diet 1 (fish oil), diet 2 (fish oil + 2% lecithin), diet 3 (fish oil + 4% lecithin), diet 4 (mixture of vegetable oils (soybean oil and Canola oil in equal proportion)), diet 5 (mixture of vegetable oils) + 2% lecithin) and diet 6 (mixture of vegetable oils + 4% lecithin). Checking and comparing the amounts of fatty acids in the diets showed the positive effect of adding soy lecithin to the diet on the increase of n-3 LCPUFA fatty acids. The results showed that growth performance increased with increasing dietary lecithin ( $P < 0.05$ ). Among the biochemical parameters, adding soy lecithin to the diet increased cholesterol and ALT enzyme but has no effect on ALP level. The results of this research showed that, inclusion of 4 % of soybean lecithin in diet for Asian sea bass is optimum for improving growth performance parameters in this species.

**Key words:** Soy lecithin, Asian seabass, Growth parameters, Biochemical parameters

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