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KEY WORD: SALINITY / n-3 HUFA / SEABASS

TANTIMA PROMDIRAKE : EFFECTS OF SALINITY AND n-3 HUFA RATIO
ON GROWTH AND SURVIVAL OF WHITE SEABASS, Lates calcarifer.

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Study on the effect of salinity and n-3 HUFAs (highly unsaturated fatty acid) ratio on growth and survival of seabass, Lates calcarifer by using factorial design (4x4). Fish with initial weight of 1.04 g was reared in four levels of salinity (0, 10, 20 and 30 ppt) and 4 levels of corn oil to tuna oil ratios (3:2, 2.5:2.5, 2:3, and 0:0) diets for 8 weeks. Total n-3 HUFA of 4 diets was 1.26, 1.38, 1.54 and 0%, respectively.

Fish fed by higher n-3 HUFAs showed higher growth rate at the appropriate salinity of 20 ppt. Survival rate of the fish in all treatments was 100%. There was salinity and levels of oil combination effect on growth of seabass ($P < 0.05$). At low salinity, higher portion of corn oil was needed, but in high salinity, higher portion of tuna oil promoted high growth rate.

Deficiency of essential fatty acid was found in fish fed diet. contained no corn and tuna fish oil. However, the fish can recover after feeding the diets contained corn and tuna oil.

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