

Effect of dietary pigment source on shell color of abalone,
Haliotis discus hannai

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This study was conducted to investigate effects of dietary pigment sources on shell color of juvenile abalone, *Haliotis discus hannai*. Three replicate groups of the abalone, average weight 173 mg, were fed the diets containing various pigment sources such as *Porphyra* powder, *Spirulina*, yeast astaxanthin and paprika extract for 16 weeks. Survival and weight gain were not affected by dietary pigment sources ($P>0.05$). Shell color of abalone fed diets containing *Porphyra* powder and *Spirulina* was approached to yellow-red and orange which are similar to shell color of wild abalone. However, shell color of abalone fed the diets containing yeast astaxanthin and paprika extract were similar to that of control diet showing bright green. *Porphyra* powder and *Spirulina* contain not only fat-soluble pigment such as chlorophyll and carotenoids but also water-soluble pigment such as phycoerythrin and phycocyanin. These results would be useful information to change shell color of abalone in aquaculture.

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