Effect of Melamine in Feed on Growth and Pathological Changes of Seabass

(Lates calcarifer Bloch, 1790)

Nonglak Samranrat 1* Pensri Muangyao 2 Supis Thongrod 3
Rungtiwa Paengmee 1 and Laongkeaw Yaponha 1

1 Coastal Aquatic Feed Research Institute
2 Coastal Aquaculture Research Institute
3 Thai Union Feedmill Company

Abstract

Effects of melamine added in feed on growth, survival rate, feed conversion ratio and pathological changes in Seabass (Lates calcarifer Bloch, 1790) were studied. Four experiment diets containing melamine at 0, 5, 50 and 500 mg/kg diet were fed three times daily to the fish with initial average body weight of 1.57 ± 0.01 g in three replication in 150 liter in fiberglass tanks for 10 weeks. At termination, results showed that the percentage weight gain of the fish in treatment 4 that was 257.70 ± 18.22 % was not significantly different (P>0.05) from that (268.09 ± 17.44 %) of the fish in treatment 3, but significantly different (P<0.05) from those (355.97 ± 22.31 and 318.27 ± 25 %) of the fish in treatment 1 and 2, respectively. The average survival rate of fish in treatment 1, 2, 3 and 4 were 96.67 ± 5.77, 96.67 ± 5.77, 95.00 ± 0.00 and 95.00 ± 5.00 %, respectively, and were not statistically differences (P>0.05). While the average feed conversion ratios of the fish in treatment 4 that was 1.74 ± 0.13 significantly different (P<0.05) of the fish in treatment 1 and 2 were 1.10 ± 0.09 and 1.25 ± 0.17, respectively, but was not significantly different (P>0.05) from that (1.56 ± 0.19) of the fish in treatment 3. However, no pathological changes were found in the in kidney, spleen, liver, intestines and muscle of the fish in all 4 treatments.

Keywords : melamine, Seabass, growth, pathology

*Corresponding author: 41/14 Moo 9 Bangpra Sub-district, Sriracha District, Chonburi Province 20110.
Tel. 0 3831 2532 e-mail: nsamranrat@yahoo.com