

عنوان مقاله:

The effects of Curcuma zedoaria and Zingiber zerumbet on non-specific immune responses of grouper *Epinephelus coioides*

محل انتشار:

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خلاصه مقاله:

This study was conducted to investigate the effects of Curcuma zedoaria and Zingiber zerumbet on non-specific immune responses of grouper (*Epinephelus coioides*). Fish were fed an experimental diet containing 0, 0.5, 1.0, 2.5 g/kg of C. zedoaria and Z. zerumbet mixed diets twice daily for two weeks. Non-specific immune parameters such as respiratory burst activity, reactive oxygen species, phagocytic activities, superoxidase dismutase activity and lysozyme activity were sampled at 0, 1, 2, 4, 7 and 14 days, respectively. Results indicated that in fish fed with C. zedoaria at 0.5 g/kg diet and Z. zerumbet at 1 g/kg and 2.5 g/kg diets the non-specific immune response was affected, especially in cellular defense which had significant effects in the short term. Thus, this study indicated that C. zedoaria and Z. zerumbet supplemented in the diets of orange-spotted grouper acted as immunostimulants and appeared to enhance the non-specific immune responses in this species.

کلمات کلیدی:

Herbs, Immunology, Phagocytosis, Plant extract, White blood cell

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