

The application of garlic (*Allium sativum*) peel on African catfish (*Clarias gariepinus*) against *Aeromonas hydrophila* infection

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Abstract

This study aim to investigate the efficacy of dietary doses of garlic (*Allium sativum*) peel on disease resistance and the duration of protection of African catfish (*Clarias gariepinus*) juveniles against *Aeromonas hydrophila* infection. African catfish juveniles were fed twice daily for 4 weeks with 20 gkg⁻¹ of garlic peels incorporated into fish formulated diet. Meanwhile 0 g of peels was served as control. After 4 weeks of post feeding, 15 fish were randomly selected for challenge with 10⁸ cell/mL of *A. hydrophila*. During the challenge the fish were not fed with dietary of garlic. The duration of protection was observed at 7, 14 and 21 days following infection. The results demonstrated that dietary garlic peels provided protection toward African catfish against *A. hydrophila* after 14 days post feeding and slightly reduced protection after 21 days of post feeding. Significantly higher survival rate were recorded in dietary garlic peels (66%, 86% and 42%) when compared with the control. The result indicated that garlic peels able to enhance disease resistant of African catfish towards *A. hydrophila* infection.

Keywords: African catfish, garlic peels, *Aeromonas hydrophila*, survival, duration protection.

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