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Protective efficacy of *Mucuna pruriens* (L.) seed meal enriched diet on growth performance, innate immunity, and disease resistance in *Oreochromis mossambicus* against *Aeromonas hydrophila*

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Abstract

The impact of *Mucuna pruriens* (L.) seed meal diet on growth performance, innate immune response, and disease resistance in *Oreochromis mossambicus* against *Aeromonas hydrophila* is reported for the first time. Infected *O. mossambicus* was fed with 2 g kg⁻¹, 4 g kg⁻¹, and 6 g kg⁻¹ of *M. pruriens* seed meal diets significantly increased initial body weight (IBW) and final body weight (FBW) over control, for a period of 4 weeks. At 4 g kg⁻¹ and 6 g kg⁻¹ the enriched diet significantly ($P < 0.05$) enhanced the survival rate, weight gain (WG), protein efficiency ratio (PER), specific growth rate (SGR), feed conversion ratio (FCR), and feed efficiency (FE) when compared to the control; besides, from weeks 2 to 4 these diets significantly ($P < 0.05$) enhanced the complement activity, phagocytic activity, respiratory burst activity, and lysosome activity. On being fed with 4 g kg⁻¹ and 6 g kg⁻¹

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