

عنوان مقاله:

Effects of mannan oligosaccharide supplementation on growth, some immune responses and gut lactic acid bacteria of common carp (*Cyprinus Carpio*) fingerlings

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خلاصه مقاله:

This study was conducted to determine the effects of mannan oligosaccharide (MOS) on growth, some immune responses and gut lactic acid bacteria of common carp. Four experimental diets containing 0%, 0.05%, 0.10% and 0.20% MOS were prepared. Each diet was randomly allocated to triplicate groups of fish with initial average weight of approximately 14 g. After eight weeks, survival rate was high in all treatments with no significant difference ($p > 0.05$). Growth performance including final weight, weight gain (WG) and specific growth rate (SGR) did not differ among the treatments. Feed conversion ratio (FCR) was better when the fish were fed 0.05 to 0.20% MOS diets. The alternative complement activity, lysozyme activity and serum total Ig were found to be significantly ($p < 0.05$) greater in fish fed 0.20% MOS diets. Although the total intestinal bacterial counts were not affected by dietary treatment ($p > 0.05$), the lactic acid bacteria levels were significantly elevated in fish fed MOS diets ($p < 0.05$). These results indicated that oral administration of MOS at 0.20% elevated the immune response, improved FCR and modulated intestinal microbiota of common carp.

کلمات کلیدی:

Cyprinus carpio, growth, Innate immunity, Intestinal microbiota, Mannan oligosaccharide

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